## Midterm Answers

1. B
2. C
3. C
4. D
5. A
6. D
7. A
8. B
9. C
10. C
11. B
12. C
13. D
14. C
15. B
16. C
17. B
18. C
19. B
20. A
21. B
22. C
23. B
24. C
25. C
26. C
27. B
28. B
29. C
30. C
31. C
32. A
33. B
34. D
35. B
36. B
37. D
38. B
39. C
40. A
41. B
42. B
43. B
44. A
45. B
46. B
47. C
48. A
49. B
50. B

## Midterm Question Sheet

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1. What does the term hardware refer to?

a. The relative difficulty of writing computer programs

b. The physical components that make up a computer

c. The way a computer's storage space is organized

d. The logical flow of instructions

e. None of these

2. A(n) \_\_\_\_\_\_\_\_\_\_ is a set of instructions that the computer follows to solve a problem.

a. compiler

b. linker

c. program

d. operator

e. None of these

3. Computer programs are also known as

a. hardware

b. firmware

c. software

d. Any of these

e. None of these

4. At the heart of a computer is its central processing unit. The CPU's job is:

a. To fetch instructions

b. To carry out the operations commanded by the instructions

c. To produce some outcome or resultant information

d. All of these

e. None of these

5. A computer stores a program while it is running

a. in main memory

b. on a hard disk

c. on the computer monitor

d. in the CPU

e. None of these

6. The \_\_\_\_\_\_\_\_\_\_ decodes an instruction and generates an electronic signal.

a. Arithmetic and Logic Unit

b. Main memory

c. BIOS

d. Control Unit

e. None of these

7. The CPU's control unit retrieves the next instruction in a sequence of program instructions from main

memory in the \_\_\_\_\_\_\_\_\_\_ stage.

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a. fetch

b. decode

c. execute

d. portability

8. During which stage does the central processing unit analyze the instruction and encode it in the form of a

number, and then generate an electronic signal?

a. fetch

b. decode

c. execute

d. portability

9. The two parts of the CPU are

a. the output device and the input device

b. the software and the hardware

c. the Control Unit and the Arithmetic and Logic Unit

d. the single-task device and the multi-task device

e. None of these

10. A volatile type of memory that is used for temporary storage is

a. an address

b. the ALU

c. RAM

d. a disk drive

e. None of these

11.In a C++ program, two slash marks (//) indicate

a. the end of a statement

b. the beginning of a comment

c. the end of a program

d. the beginning of a block of code

e. None of these

12. A statement that starts with a hashtag (or pound) symbol (#) is called a

a. comment

b. function

c. preprocessor directive

d. header file

e. None of these

13. For every opening brace ({) in a C++ program, there must be a

a. string literal

b. function

c. comment

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d. closing brace

e. None of these

14. The \_\_\_\_\_\_\_\_\_\_ is(are) used to display information on the computer's screen.

a. opening and closing braces

b. opening and closing quotation marks

c. cout object

d. backslash

e. None of these

15. In the following statement, the characters Hello! are a(n)

cout << "Hello!";

a. variable

b. string literal

c. comment

d. object

e. None of these

16. The \_\_\_\_\_\_\_\_\_\_ causes the content of another file to be inserted into a program.

a. cout object

b. double slash (//)

c. #include directive

d. semicolon (;)

e. None of these

17. Which of the following must be included in any program that uses the cout object?

a. opening and closing braces

b. the header file <iostream>

c. comments

d. a namespace

e. None of these

18. Character literals in C++ are always enclosed in

a. brackets ( < > )

b. braces ( { } )

c. single quotation marks ( ' ' )

d. pound sign and semicolon ( # ; )

e. Any of these

19. Every complete C++ program must have a

a. comment

b. function named main

c. symbolic constant

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d. cout statement

e. None of these

20. In a cout statement, which of the following will advance the output position to the beginning of the next

line?

a. endl or \n

b. end1 or /n

c. \n or \t

d. \t or \b

e. \\ or \'

21.The \_\_\_\_\_\_\_\_\_\_ causes a program to wait until information is typed at the keyboard and the [Enter] key is

pressed.

a. output stream

b. cin object

c. cout object

d. preprocessor

e. None of these

22. The \_\_\_\_\_\_\_\_\_\_ operator always follows the cin object, and the \_\_\_\_\_\_\_\_\_\_ operator follows the

cout object.

a. binary, unary

b. conditional, binary

c. >>, <<

d. <<, >>

e. None of these

23. Which of the following must be included in any program that uses the cin object?

a. compiler

b. the header file <iostream>

c. linker

d. brackets

e. None of these

24. When a user types values at the keyboard, those values are first stored

a. as ASCII characters

b. in the header file <iostream>

c. in the keyboard buffer

d. as integers

e. None of these

25. Which of the following will allow the user to input the values 15 and 20 and have them stored in variables named

base and height, respectively?

a. cin << base << height;

b. cin base, height;

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c. cin >> base >> height;

d. cin base >> cin height;

e. None of these

26. What will be displayed after the following statements execute?

int num1 = 5;

int num2 = 3;

cout << "The result is " << (num1 \* num2 + 10) << endl;

a. The result is 5 \* 3 + 10

b. The result is (num1 \* num2 + 10)

c. The result is 25

d. The result is 65

e. None of these

27. What is the value of result after the following statement executes?

result = (3 \* 5) % 4 + 24 / (15 - (7 - 4));

a. -6.4

b. 5

c. 1.6

d. 2.25

e. None of these

28. In the following statement, what will be executed first according to the order of precedence?

result = 6 - 3 \* 2 + 7 - 10 / 2;

a. 6 - 3

b. 3 \* 2

c. 2 + 7

d. 10 / 2

e. 7 - 10

29. Associativity is either right to left or

a. top to bottom

b. front to back

c. left to right

d. undeterminable

e. None of these

30. What is the value of x after the following code executes?

int x = 0;

int y = 5;

int z = 4;

x = x + y + z \* 2;

a. 18

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b. 0

c. 13

d. 26

e. unknown

31. Relational operators allow you to \_\_\_\_\_\_\_\_\_\_ numbers.

a. add

b. multiply

c. compare

d. average

e. None of these

32. After the following code executes, what is the value of my\_value if the user enters 0?

cin >> my\_value;

if (my\_value > 5)

my\_value = my\_value + 5;

else if (my\_value > 2)

my\_value = my\_value + 10;

else

my\_value = my\_value + 15;

a. 15

b. 10

c. 25

d. 0

e. 5

33. After the following code executes, what is the output if user enters 0?

int x = -1;

cout << "Enter a 0 or 1: ";

cin >> x;

if (c)

cout << "true" << endl;

else

cout << "false" << endl;

a. nothing will be displayed

b. false

c. x

d. true

e. 0

34. What is assigned to the variable result given the statement below with the following assumptions: x =

10, y = 7, and x, result, and y are all int variables.

result = x >= y;

a. 10

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b. 7

c. x >= y

d. 1

e. 0

35. If you place a semicolon after the statement:

if (x < y)

a. the code will not compile

b. the compiler will interpret the semicolon as a null statement

c. the if statement will always evaluate to false

d. All of these are true

e. None of these

36. When a relational expression is false, it has the value

a. 1

b. 0

c. 0, 1, or -1

d. -1

e. None of these

37. What is the output of the following code segment?

int x = 5;

if (x = 2)

cout << "This is true!" << endl;

else

cout << "This is false!" << endl;

cout << "That's all, folks!" << endl;

a. This is true!

b. This is false!

c. This is false!

That's all, folks

d. This is true!

That's all folks

e. This is true!

This is false!

That's all, folks!

38. What is the output of the following code segment if the user enters 90 for the score?

cout << "Enter your test score: ";

cin >> test\_score;

if (test\_score < 60)

cout << "You failed the test." << endl;

if (test\_score > 60)

cout << "You passed the test."

else

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cout << "You need to study harder next time." << endl;

a. You failed the test.

b. You passed the test.

c. You need to study harder next time.

d. You failed the test.

You need to study harder next time.

e. You passed the test.

You need to study harder next time.

39. Whereas < is called a relational operator, x < y is called a(n)

a. arithmetic operator

b. relative operator

c. relational expression

d. arithmetic expression

e. None of these

40. The \_\_\_\_\_\_\_\_\_\_ is an equality (or comparison) operator.

a. ==

b. >=

c. !=

d. =

e. None of these

41. These are operators that add and subtract one from their operands.

a. plus and minus

b. ++ and --

c. binary and unary

d. conditional and relational

e. binary and ternary

42. This operator increments the value of its operand and then uses the value in context.

a. prefix increment

b. postfix increment

c. prefix decrement

d. postfix decrement

e. None of these

43. This is a control structure that causes a statement or group of statements to repeat.

a. decision statement

b. loop

c. cout object

d. selection structure

e. None of these

44. The two important parts of a while loop are the expression that is tested for a true or false value and

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a. a statement or block that is repeated as long as the expression is true

b. a statement or block that is repeated only if the expression is false

c. one line of code that is repeated once, if the expression is true

d. a statement or block that is repeated once, if the expression is true

45. Something within a while loop must eventually cause the condition to become false or a(n)

\_\_\_\_\_\_\_\_\_\_ results.

a. null value

b. infinite loop

c. unexpected exit

d. compiler error

e. None of these

46. The while loop is a \_\_\_\_\_\_\_\_\_\_ loop.

a. post-test

b. pre-test

c. infinite

d. limited

e. None of these

47. If you place a semicolon after the test expression in a while loop, it is assumed to be a(n)

a. pre-test loop

b. post-test loop

c. null statement

d. infinite loop

e. None of these

48. The statements in the body of a while loop may never be executed while the statements in the body of a

do-while loop will be executed

a. at least once

b. at least twice

c. never

d. as many times as the user wishes

e. None of these

49. When the increment operator precedes its operand, as ++num, the expression is in \_\_\_\_\_\_\_\_\_\_ mode.

a. postfix

b. prefix

c. preliminary

d. binary

e. None of these

50. This means to increase a value:

a. decrement

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b. increment

c. modulus

d. parse

e. None of these