**QUESTION 1**

1. Which of the following loop statements always have their body executed at least once?

|  |  |  |
| --- | --- | --- |
|  |  | The while loop |
|  |  | The do-while loop |
|  |  | The for loop |
|  |  | None of the choices |

**5 points**

**QUESTION 2**

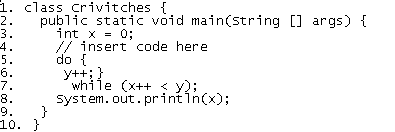
1. Which of the following program ends up with x = 0, y = -1?

|  |  |  |
| --- | --- | --- |
|  |  | int x = 0;  int y = 0;  switch (x + 1) {  case 0: y = 0;  case 1: y = 1;  default: y = -1;  } |
|  |  | int x = 0;  int y = 0;  if (x = 0)  y = -1;  else  y = 1; |
|  |  | int x = 0;  int y = 0;  for (int i = 0; i < 1; i++)  {y--;  x+= y;  }</div></body> |
|  |  | int x = 0;  int y = -1;  do  {x++; y--;}  while (x < 0) |

**5 points (Extra Credit)**

**QUESTION 3**

1. Given:

Which of the following, inserted at line 4, will prevent line 6 (y++;) from executing?

|  |  |  |
| --- | --- | --- |
|  |  | int y = x; |
|  |  | int y = 10; |
|  |  | int y = 11; |
|  |  | None of the given options |

**10 points**

**QUESTION 4**

1. Within the following code:

int balance = 11;

while(balance-- >= 1)

{

  if(balance > 9)

    continue;

  balance -= 9;

}

How many times is "continue" executed?

|  |  |  |
| --- | --- | --- |
|  |  | 0 |
|  |  | 1 |
|  |  | 9 |
|  |  | 10 |

**10 points**

**QUESTION 5**

1. Consider the following segment of code:

int length = 10; int sum = 0;

// insert a definition of idx here

while (idx <= length)

{

    sum += idx;

    idx++;

}

What is the minimum value of idx to be used before the loop so the sum would not change inside the loop?

|  |  |  |
| --- | --- | --- |
|  |  | int idx = 9; |
|  |  | int idx = 10; |
|  |  | int idx = 11; |
|  |  | None of these choices, a while loop cannot be totally skipped |

**10 points**

**QUESTION 6**

1. Given the following declarations:

  int a = 10;  
  int b = 20;

the expression.(++b - a++) will evaluate to

|  |  |  |
| --- | --- | --- |
|  |  | 10 |
|  |  | 12 |
|  |  | 11 |
|  |  | 9 |

**10 points**

**QUESTION 7**

1. Which one of the following is true about Java?

|  |  |  |
| --- | --- | --- |
|  | a. | It is not case sensitive. |
|  | b. | It can be compiled using the C++ compiler. |
|  | c. | It is one type of 4th generation language such as SQL. |
|  | d. | It is object oriented and is widely used in web applications. |

**5 points**

**QUESTION 8**

1. Java compiles the source code into an intermediate language called byte-code. What is byte-code?

|  |  |  |
| --- | --- | --- |
|  |  | It's 8 bits of coding |
|  |  | It's a collection of bytes of data |
|  |  | It's the machine language for the Java Virtual Machine |
|  |  | It's the machine language for Intel-class computers |

**5 points**

**QUESTION 9**

1. Which one of the following is a correct assignment statement for the variable x?

|  |  |  |
| --- | --- | --- |
|  |  | int x = 20, |
|  |  | double x = 20; |
|  |  | int 20 = x; |
|  |  | double 20.0 = x; |

**5 points**

**QUESTION 10**

1. In Java, a statement block is delimited by:

|  |  |  |
| --- | --- | --- |
|  |  | ( ) |
|  |  | /\* \*/ |
|  |  | ; |
|  |  | { } |

**5 points**

**QUESTION 11**

1. Which one of the following lines is not a properly formatted comment?

|  |  |  |
| --- | --- | --- |
|  | a. | //  this is a comment  // |
|  | b. | // This is a comment |
|  | c. | /\* This is a comment \*/ |
|  | d. | /\* this is a comment \*/ |

**5 points**

**QUESTION 12**

1. The System.out.println("hello") method:

|  |  |  |
| --- | --- | --- |
|  |  | prints its argument, and then prints an end-of-line |
|  |  | is the same as the System.out.print() method |
|  |  | prints an end-of-line, then prints its argument |
|  |  | has the same effect as System.out.print('\n') |

**5 points**

**QUESTION 13**

1. Which of the following is the correct sequence of declaring the main() method of a Java application?

|  |  |  |
| --- | --- | --- |
|  |  | public static void main(String[] args) |
|  |  | public void static main(String[] args) |
|  |  | static public void main(String[] args) |
|  |  | public void static main() |

**5 points**

**QUESTION 14**

1. Given the following declarations:

  int a = 10;  
  int b = 30;  
  int c = 20;

the expression.(a + b / c + a) will evaluate to

|  |  |  |
| --- | --- | --- |
|  |  | 12 |
|  |  | 10 |
|  |  | 21 |
|  |  | 1 |

**5 points**

**QUESTION 15**

1. Given the following declarations:

  int age = 30;  
  double salary = 25000 ;

which one of the following is a valid assignment statement?

|  |  |  |
| --- | --- | --- |
|  |  | age = salary / 100; |
|  |  | salary = 100 \* age; |
|  |  | age = salary - 10000; |
|  |  | age = salary \* age; |

**5 points**

**QUESTION 16**

1. What is the relationship between .java and .class files?

|  |  |  |
| --- | --- | --- |
|  |  | They have no relationship. |
|  |  | A .java file (with no syntax errors) can be compiled into a .class file. |
|  |  | A .java file is the byte-code file that the Java Virtual Machine can understand. |
|  |  | A .class file contains the machine executable code, while a .java file contains the source code. |

**5 points**

**QUESTION 17**

1. Which of the following is not a keyword of Java?

|  |  |  |
| --- | --- | --- |
|  |  | class |
|  |  | public |
|  |  | keyword |
|  |  | void |