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| No. of Pages | 2 |
| No. of Questions | 3 |
| Total Marks | 25 |
| **Time**: 1 Hour | |

**Department of Computer Science and Engineering**

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**MIDTERM EXAMINATION Fall 2013**

**CSE 110: Programming Language I**



* Answer all questions. Use the answer script for rough work.
* Write final answers of tracing problems **on the question paper**.
* Figure in bracket [] next to each question indicates marks for that question.
* At the end of exam, put **question paper** inside answer script and **return both**.
* Understanding the question is part of the exam, please do not ask questions.



Section: \_\_\_\_ ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Name in CAPITAL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Names/initials of Lab Teachers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lab Room Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lab Time \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Question 1 [10 Points]**

**[Answer on the answer-script]**

Either draw the flowchart or, write the java code of a program that asks the user for starting value, ending value and the change/difference between terms of an arithmetic series and then prints the series. For example**,** If the user gives 0, 1234, 100, then your program should print 0, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200.

#### **Question 2 [5 Points]**

[answer on question paper]

|  |
| --- |
| Write output of following lines: |
| **String x = "ab";** |
| **int p, y = 23, w = 21, j = 10, z = 5, c = 2;** |
| **double d = 42;** |
| **p = y / 3 % 2;** |
| **System.out.println(y - p / 2);** |
| **x = p \* 2 + x + (3 + 2);** |
| **System.out.println(x);** |
| **j\*=2;** |
| **w = w / 2 \* 3 - j;** |
| **System.out.println(w % 2 +"32"+ j);** |
| **z+= 8;** |
| **d/=2;** |
| **c = z % c;** |
| **d = 1 + d / c + 21;** |
| **System.out.println(d / 2 + 3 + "c");** |
| **c=c++ + c-- + z++ + z-- + ++c;** |
| **System.out.println(c \* 2 + d);** |

#### **Question 3 [10 Points]**

**OUTPUT:**

|  |
| --- |
| **23** |
| **2ab5** |
| **03220** |
| **24.5c** |
| **107.0** |
|  |
|  |
|  |

[answer on question paper]

|  |
| --- |
| **public class Q4 {** |
| **public static void main(String[] args) {** |
| **boolean var1=false,var2=false,var3=false,var4=false,var5=false;** |
| **boolean var6=false,result1=false,result2=false,result3=false;** |
| **boolean result4=false,result5=false,result6=false,result7=false;** |
| **boolean result8=false,result9=false,result10=false;** |
| **var1 = 4 < 1 - 1;** |
| **var2 = var1 && false;** |
| **var3 = false;** |
| **var4 = false;** |
| **var5 = true;** |
| **var6 = var3 && false;** |
| **result2 = (var1 || var2) && (8 \* 10 > 45);** |
| **result1 = (var1 || var2) && (result1 && false);** |
| **result4 = (var1 && result1) || result2;** |
| **result3 = (var1 || var2) || ((var3 && var1) && false);** |
| **result10 = !((var1 && var2) && (result3 || var1));** |
| **result7 = ((var3 || var2) && !(result5)) || true;** |
| **result5 = (var4 && result1) && ((result1 && false) || true);** |
| **result8 = ((var1 && result3) && (var5 || var6)) && true;** |
| **result6 = ((result2 && var2) || (result7 && var1)) && false;** |
| **result6 = !(var1 && true);** |
| **System.out.println(result1);** |
| **System.out.println(result2);** |
| **System.out.println(result3);** |
| **System.out.println(result4);** |
| **System.out.println(result5);** |
| **System.out.println(result6);** |
| **System.out.println(result7);** |
| **System.out.println(result8);** |
| **System.out.println(result9);** |
| **System.out.println(result10);** |
| **}** |
| **}** |

**Show the final values of the result variables in the above program:**

[Answer on the question paper. There are NO errors / mistakes in this question. The question is correct.]

|  |  |  |  |
| --- | --- | --- | --- |
| **result1** | **false** | **result6** | **true** |
| **result2** | **false** | **result7** | **true** |
| **result3** | **false** | **result8** | **false** |
| **result4** | **false** | **result9** | **false** |
| **result5** | **false** | **result10** | **true** |