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| --- | --- |
| No. of Pages | 2 |
| No. of Questions | 2 |
| Total Marks | 20 |
| **Time**: 1 Hours | |

**Department of Computer Science and Engineering**

B

**MIDTERM EXAMINATION Spring 2017**

**CSE 111: Programming Language II**

* Write theory teacher’s initial (MSA/MSN) on top of the answer script.
* 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**. No washroom breaks.



**Section: \_\_\_ ID: \_\_\_\_\_\_\_\_\_\_\_\_\_ Name in CAPITAL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name of Lab Teachers \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lab Room Number \_\_\_\_\_\_\_\_\_\_\_\_\_ Lab Day \_\_\_\_\_\_\_\_\_\_\_**

#### Question 1 [10 Points]

**public class Dog {**

**private String color = "Black";**

**//your code here**

**}**

**public class Midterm {**

**public static void main (String[] args){**

**Dog scooby = new Dog();**

**Dog odie = new Dog("Red");**

**Dog goofy = new Dog("Blue");**

**scooby.bark();**

**odie.bark();**

**goofy.bark();**

**scooby.changeColor("Brown");**

**scooby.bark();**

**}**

**}**

Complete the **Dog** class so the **main** method above produces the following output:

**Black dog is barking**

**Red dog is barking**

**Blue dog is barking**

**Brown dog is barking**

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

#### Question 2 [10 Points]

|  |
| --- |
| **class A{** |
| **public int x = 12;** |
| **public int y = 120;** |
| **public A(){** |
| **int x = 5;** |
| **y = y - x;** |
| **x = x + y;** |
| **}** |
| **public A(A k){** |
| **int y = 1;** |
| **x = x + y + k.y;** |
| **}** |
| **public A(int[] p){** |
| **int y = 1;** |
| **this.y = this.y - 10 + p[0];** |
| **x = x + p[0] + y;** |
| **p[0] = p[0] - 10;** |
| **}** |
| **public void printInfo(){** |
| **System.out.println(x + " " + y);** |
| **}** |
| **}** |

What is the output of the following code sequence? **[Answer on question paper]**

|  |  |  |
| --- | --- | --- |
| **int[] x = {200};**  **A c1 = new A();**  **c1.printInfo();**  **A c2 = new A(c1);**  **c2.printInfo();**  **A c3 = new A(x);**  **c3.printInfo();**  **A c4 = new A(x);**  **c4.printInfo();**  **A c5 = new A(c4);**  **c2.printInfo();** | **x** | **y** |
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