BRAC University
Department of Computer Science and Engineering (CSE)
CSE111: Programming Language II

Quiz 3 – Spring 2025
Time: **25 minutes**
Full marks: **10**

A

Name: _____ ID: _____ Section: _____

(There is 1 question only. You must answer the complete java code.)

Q1. Trace the following Code and Write down the generated output:

```
1  class Employee{
2    public static int count;
3    public int id;
4    public String grade;
5    public Employee(int id){
6      this(id, "A");
7    }
8    public Employee(int id, String grade){
9      this.id = id;
10     this.grade = grade;
11     ++count;
12   }
13   public static void showInfo(Employee e){
14     count--;
15     System.out.println(e.id+" "+e.count+" "+e.grade);
16    }
17   public void promote(){
18     grade += "+";
19     id = count + 7;
20     System.out.println(id+" "+count+" "+grade);
21   }
22   public void demote(){
23     grade += "-";
24     count = id + 9;
25     showInfo(this);
26   }
27 }
```

<TESTER CODE ON NEXT PAGE>

		OUTPUT		
1	`public class Tracing{`			
2	`  public static void main(String[] args) {`			
3	`    Employee a = new Employee(23);`			
4	`    Employee b = new Employee(21, "B");`			
5	`    a.promote();`			
6	`    b.demote();`			
7	`    Employee.showInfo(a);`			
8	`  }`			
9	`}`			

Q2: Suppose there are 5 objects of a class. How many copies of static variables exist?
Ans:

Q3. Can a default access method be called from another class?
Ans:

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B

Name: _____ ID: _____ Section: _____

*(There is **1** question only. You must answer the complete java code.)*

Q1. Trace the following Code and Write down the generated output:

```
1  class Employee{
2    public static int count;
3    public int id;
4    public String grade;
5    public Employee(int id){
6      this(id, "A");
7    }
8    public Employee(int id, String grade){
9      this.id = id;
10     this.grade = grade;
11     ++count;
12   }
13   public static void showInfo(Employee e){
14     count--;
15     System.out.println(e.id+" "+e.count+" "+e.grade);
16     }
17   public void promote(){
18     grade += "+";
19     id = count + 7;
20     System.out.println(id+" "+count+" "+grade);
21   }
22   public void demote(){
23     grade += "-";
24     count = id + 9;
25     showInfo(this);
26   }
27 }
```

`<TESTER CODE ON NEXT PAGE>`

			OUTPUT	
1	public class Tracing{			
2	public static void main(String[] args) {			
3	Employee a = new Employee(15);			
4	Employee b = new Employee(12, "B");			
5	a.promote();			
6	b.demote();			
7	Employee.showInfo(a);			
8	}			
9	}			

Q2: Suppose there are 3 objects of a class. How many copies of static variables exist?
Ans:

Q3. How do we access / use private methods?
Ans: