# **Java Exercise date 26-02-2020 Part 2**

**Question:**

1.Show the output of the following code, comment to explain it:

java.util.Date date = new java.util.Date();

java.util.Date date1 = date;

java.util.Date date2 = (java.util.Date)(date.clone());

System.out.println(date == date1);

System.out.println(date == date2);

System.out.println(date.equals(date2));

**Answer: Output:**

**true**  //because "**date**" and "**date1**" have the same memory allocation.

**false** //because "**date2**" is cloned from "date" to generate new memory allocation.

**true** //because "**date**" and "**date2**" have the same data.

**Question:**

2.Show the output of the following code, comment to explain it:

ArrayList<String> list = new ArrayList<>();

list.add("New York");

ArrayList<String> list1 = list;

ArrayList<String> list2 = (ArrayList<String>)(list.clone()); list.add("Atlanta");

System.out.println(list == list1);

System.out.println(list == list2);

System.out.println("list is " + list);

System.out.println("list1 is " + list1);

System.out.println("list2.get(0) is " + list2.get(0));

System.out.println("list2.size() is " + list2.size());

**Answer:Output:**

**true**  //because "**list1**"has the same value and the same memory allocation as"**list**"**.**

**false** //because "**list**"has two sizes and "**list2**" has one size and also different memory

Allocation.

**Question:**

3.Show the output of the following code.

public class Test {

public static void main(String[] args) {

Number x = 3; System.out.println(x.intValue());

System.out.println(x.doubleValue());

} }

4.What is wrong in the following code

public class Test {

public static void main(String[] args) {

Number x = new Integer(3); System.out.println(x.intValue()); System.out.println((Integer)x.compareTo(new Integer(4)));

} }

**Answer3:Output:**

**3**

**3.0**

**Answer4:No Output:**

Because variable **x** is already defined in method main(String[])