OOP Assignment 2

1. **Write the Output of the following codes:** **[5]**

```
public class Sum {
   int x, y, z;

   {
      System.out.println(x+y+z);
   }

   {
      x = 10;
      y = 20;
      z = 30;
      System.out.println(x+y+z);
   }

   public Sum(int x) {
      this.x = x;
      System.out.println(x+y+z);
   }

   public Sum(int x, int y) {
      this(1000);
      this.x = x;
      this.y = y;
      System.out.println(x+y+z);
   }

   public Sum(int x, int y, int z) {
      this(100, 200);
      this.x = x;
      this.y = y;
      this.z = z;
      System.out.println(x+y+z);
   }

   public void display(){
      this.display("That's one small step for man, one giant leap for mankind.");
   }
```

```
   public void display(String str){
      System.out.println(str);
   }

   public static void main(String args[])
   {
      Sum s = new Sum(10, 20, 30);
      s.display();
   }
}
```

2. Consider the following Java code:

```
class Shape {
   void draw() {
      System.out.println("drawing...");
   }
}
class Rectangle extends Shape {
   void draw() {
      System.out.println("drawing
rectangle...");
   }
}

class Circle extends Shape {
   void draw() {
      System.out.println("drawing
circle...");
   }
}

class Triangle extends Shape {
   void draw() {
      System.out.println("drawing
triangle...");
   }
}
```

Output:

```
drawing rectangle...
drawing circle...
drawing triangle...
```

Write a class named Test, whish has the main() method. In the main() method, create a heterogeneous array named “s” of Shape class, where array length is three. Index s[0] creates with Rectangle class, s[1] creates with Circle class, s[2] creates with Triangle class. Finally, iterate a loop to call draw() method of each object. [5]