Practical-05

Exercise-01

```
public interface MyFirstinerface
{
int x=5;
void display();
}
public class InterfaceImplemented implements MyFirstinterface
{ @Override
public void display()
{ System.out.println("The value of x is:"+x);
}
}

public class Main()
{
 public static void main (String[] args)
{InterfaceImplemented  i1=new InterfaceImplemented( );
i1.display();
}
}
```

1) No.Because inside an interface by default are public static void.

2)No. Because all the methods inside an interface are abstract by default.

3)No**.** If a variable is final, it cannot change other than the value assigned in initialization.

Exercise-02

```
public interface speaker {
   public void speak();
   }
public class Politician implements speaker{
  @Override
   public void speak(){
      System.out.println("As a Politician I speak");
   }
  }
public class Priest implements speaker{
   @Override
   public void speak(){
   System.out.println("As a Priest I pray");
   }
   }
public class Lecturer implements  speaker {
   @Override
   public void speak(){
   System.out.println("As a Lecturer I teach");
   }
   }
public class Lab07Q2 {

   public static void main(String[] args) {
      Politician p1=new Politician();
```

```
        p1.speak();
       Priest p2=new Priest();
       p2.speak();
       Lecturer p3=new Lecturer();
       p3.speak();
    }
}
```

Exercise-03

100 is the outcome cause it's the final variable assigned in initialization.

Exercise-04

```
abstract class Shape {
   protected float radius,length,breadth;

   public Shape()
   { radius=2.54f;
   length=10.5f;
   breadth=5.4f;
   }
  abstract  void calculateArea();

public void display()
{ System.out.println("Finding the Area;");
}
}
```

```
public class Circle extends Shape{
  @Override
  void calculateArea()
  {
     System.out.println("The area of the circle is:"+3.14f*radius*radius);
  }
}
public class Rectangle extends Shape {
    @Override
    void calculateArea()
  {
     System.out.println("The area of the Rectangle is:"+length*breadth);
  }
   }
public class Lab07Q4 {

    public static void main(String[] args) {
       Circle c1=new Circle();
        c1.display();
        c1.calculateArea();
       Rectangle r1=new Rectangle();
        r1.display();
        r1.calculateArea();

    }
}
```