LAB SHEET 05 : ENCAPSULATION & INHERITANCE – ANSWERS

Exercise 01:

- ✓ Person Class

```
public class Person
{
   private String name;
   private int id;


   public Person (String name, int id)
{
      this.name = name;
      this.id = id;
   }


   public String getName()
{
      return name;
   }


   public int getID()
{
      return id;
   }
}
```

- ✓ Student Class (subclass of person)

```
public class Student extends Person
{
   private String course;


   public Student (String name, int id, String course)
{
      super(name, id);
      this.course = course;
   }


   public String getCourse()
 {
      return course;
   }
}
```

- ✓ Lecturer Class (subclass of person)

```
public class Lecturer extends Person
{
   private String programme;


   public Lecturer(String name, int id, String programme)
{
      super(name, id);
      this.programme = programme;
   }


   public String getProgramme()
{
      return programme;
   }
}
```

- ✓ Object / Test Class

```
public class TestPerson
 {
   public static void main(String[] args)
{
      // Creating a Student object

      Student student = new Student("Aasik", 29127, "Computer
Networks");

      System.out.println("Student Name: " + student.getName());

      System.out.println("Student ID: " + student.getID());

      System.out.println("Student Course: " + student.getCourse());

      // Creating a Lecturer object

      Lecturer lecturer = new Lecturer("Shafraz", 11324, "MBA");

      System.out.println("\nLecturer Name: " + lecturer.getName());

      System.out.println("Lecturer ID: " + lecturer.getID());

      System.out.println("Lecturer Programme: " +
lecturer.getProgramme());

   }
}
```

Exercise 02:

Output is:

True

True

True