Home Work

Note : Outputs expected to get after fixing errors if you notice any

1). Consider the following 4 declarations:

```
a). int i =10;
b). static int i=10;
c). public void m1()  { System.out.println(i); }
d). public static void m1() { System.out.println(i); }
```

Within the same class which of the following declarations are valid.

1). a & c

2). a & d

3). b & c

4). b & d

2). What will be the output of below code:

```
class Sample {
 int i=10;
 static int j=20;

 public static void main(String args[]) {
   System.out.println(i+"...."+j);
       Sample s1=new Sample();
       s1.i=100;
       s1.j=200;
   System.out.println(s1.i+"...."+s1.j);
       Sample s2=new Sample();
   System.out.println(s2.i+"...."+s2.j);
       s2.j=2000;
   System.out.println(s1.i+"...."+s1.j);

   }
}
```

3). Which of the following classes are tightly encapsulated ?

```
class A { private int x=10; }
class B extends A { int y=20; }

class C { int a=10; }
class D extends C { private int b=10; }
class E extends D { private int c=5; }
```

4). What will be the output of below code:

```
 class Test {
 int x;

 Test() {
 this.x=10;
 super();      }

 public static void main(String args[]) {
Test t=new Test();
System.out.println(t.x); }
}
```

5). Get output of below :

```
public class Engine {}
public class Vehicle extends Engine { }

 public class BMW {
 public void getSpares(Engine e1)
        {System.out.println("Engine");}
 public void getSpares(Vehicle v1)
        {System.out.println("Vehicle");}
 public static void main(String args[]) {
  BMW b=new BMW();
  Engine e = new Engine();
  b.getSpares(e);
  Vehicle v = new Vehicle();
  b.getSpares(v);
  Engine e1 = new Vehicle();
  b.getSpares(e1);
 }
}
```

6). Get output of below :

```
package pack1;
public class A {
    protected void sayHi(){ System.out.println(" Hi ");}
}

package pack2;
import pack1.A;
public class B extends A
{
    public static void main(String[] args)
    {
        B b = new B();
        b.sayHi();

        A a = new A();
        a.sayHi();

        A a1 = new B();
        a1.sayHi();
    }
}
```

7). Get output of below :

```
public class HiHello {
    public void sayHi() {
        System.out.println("Hi"); }

    public static void sayHello() {
        sayHi();
        System.out.println("Hello");
    }

    public void sayBye() {
        sayHi();
        System.out.println("Bye"); }

    public static void main(String[] args) {
        sayHello();
        sayBye();
        HiHello h = new HiHello();
        h.sayHi();
        h.sayHello();
        h.sayBye();  }
}
```

8). Get output of below :

```
public class Test1 {
    private int x;
    public void setX(int x){ this.x =x; }
    public int getX() { return x; }
    public void addTwo(){
        int x = getX();
        x= x+2;
        System.out.println("Inside Method :"+ getX());
        }

    public static void main(String[] args){
        Test1 t1 = new Test1();
        t1.setX(5);
        System.out.println("Before addTwo: "+t1.getX());
        t1.addTwo();
        System.out.println("After addTwo: "+t1.getX());
    }
}
```