OOP
Sheet 1 (Lectures 1 to 5)

Name:……………………………………………………..   **Class**:………………

1- What is constructor? What is the purpose of default constructor? Does a constructor return any value? What happens if we use a return type when defining a constructor?

2- What is method overloading? Give examples.

3- What is method overriding? Create examples to clarify your answer.

4- (a) Show the errors in the following code segments, and correct them.

   (b) override the method *addition* in all possible ways.

package pack;	package pack;
class Test	class Test1 extends Test
{ protected int x;	{ public static void main(String args[])
private int y;	{ x=100;
int addition(int I, int j)	y=30;
{ return i + j;}	int z = addition(x , y);
}	}
	}

5- **Define:** a class, an object and abstraction. Give examples in Java.

6- **Define:** inheritance, polymorphism, and encapsulation. Give examples in Java.

7- **Define:** association and its types. Give examples in Java.

8- Why main method is static?

9- Show the errors in the following code segments, and correct them.

| package pack;
public class Test
{   protected int x;
    public int y;
int addition(int I, int j)
{ return i + j;}
} | package pack1;
import pack.*;
 class Test1 extends Test
{
int z;
public static void main(String args[])
 { Test t = new Test( );
   Test1 t1 = new Test1( );
   t1.z = t.addition(t.x , t.y);
   }
   } |