School of Computer Science Engineering and Technology

Course- BTech
Course Code- **CSET**
Year- First
Type- Core
Course Name- **Object Oriented Programming Using Java**
Semester- Even Batch- BTech 2nd Semester

Tutorial-6

Tutorial No.	Name	CO1	CO2	CO3
1	Basics	✓	--	--

Objective: The main objective of this tutorial is to learn about the basics of Java language.

6.1 What will be the Output of the below code:

```
class ObjectPassDemo {
        int a, b;
        ObjectPassDemo(int i, int j)
        {
                a = i;
                b = j;
        }
        boolean equalTo(ObjectPassDemo o)
        {
                return (o.a == a && o.b == b);
        }
}
public class Test {
        public static void main(String args[])
        {
                ObjectPassDemo ob1 = new ObjectPassDemo(100, 22);
                ObjectPassDemo ob2 = new ObjectPassDemo(100, 22);
                ObjectPassDemo ob3 = new ObjectPassDemo(-1, -1);
                System.out.println("ob1 == ob2: "+ ob1.equalTo(ob2));
                System.out.println("ob1 == ob3: "+ ob1.equalTo(ob3));
        }
}
```

6.2 What will be the Output of the below code:

```
class Test {
        int[] getSumAndSub(int a, int b)
        {
                int[] ans = new int[2];
                ans[0] = a + b;
                ans[1] = a - b;
        return ans;
        }
        public static void main(String[] args)
        {
```

```
		Test t=new Test();
	int[] ans = t.getSumAndSub(100, 50);
		System.out.println("Sum = " + ans[0]);
		System.out.println("Sub = " + ans[1]);
	}
}
```

6.3 What will be the output of the following program?

```
class Test {
	static int ans[];
	Test(){
	this(6,4);
	}
	Test(int a, int b)
	{
		ans = new int[2];
		ans[0] = a + b;
		ans[1] = a - b;
	}
	public static void main(String[] args)
	{
		Test t=new Test();
		System.out.println("Add= " + ans[0]);
		System.out.println("Sub = " + ans[1]);
	}
}
```

6.4 What is the result of the following code?

```
class Data {
int data1;
int data2;
}
class SetData {
void setData(Data da,int d1,int d2)
{
da.data1 = d1;
da.data2 = d2;
}
void getData(Data da)
{
System.out.println("data1 : "+da.data1);
System.out.println("data2 : "+da.data2);
}
}
public class New {
public static void main(String[] args) {
Data da = new Data();
SetData sd = new SetData();
```

```
sd.setData(da,50,100);
sd.getData(da);
}
}
```

6.5 What is the output of following code?

```
class ObjectReturnDemo {
        int a;
        ObjectReturnDemo(int i) { a = i; }
        ObjectReturnDemo incrByTen()
        {
        ObjectReturnDemo temp = new ObjectReturnDemo(a + 10);
                return temp;
        }
}
public class Test {
public static void main(String args[])
        {
                ObjectReturnDemo ob1 = new ObjectReturnDemo(2);
                ObjectReturnDemo ob2;
                ob2 = ob1.incrByTen();
                System.out.println("ob1.a: " + ob1.a);
                System.out.println("ob2.a: " + ob2.a);
        }
}
```

6.6 Which of the following declarations are invalid?

```
import java.util.*;
public class New {
public void examplemethod(Scanner sc)
{
System.out.println("What is your name? ");
String name = sc.next();
System.out.println("Your name is " + name + "!");
}
public static void main(String args[])
{
Scanner sc = new Scanner(System.in);
New ob = new New();
ob.examplemethod(sc);
}
}
```

6.7 What would be the result of the following code?

```
public class Example {
  Example(int a, int b){
    System.out.println(multiply(a,b));
  }
        public static int multiply(int a, int b)
        {
                return a * b;
```

```
        }
        public static void main(String[] args)
        {
                int x = 2;
                int y = 5;
                new Example(2,5);
        }
}
```

6.8 What will be the output of the following program?

```
package test;
class Add
{
int a;
int b;
Add(int x,int y)
{
a=x;
b=y;
}
void sum(Add A1)
{
int sum1=A1.a+A1.b;
System.out.println("Sum of a and b :"+sum1);
}
}
public class New
{
public static void main(String arg[])
{
Add A=new Add(5,8);
A.sum(A);
}
}
```

6.9 What will be the Output of the below code:

```
import java.util.Arrays;
class New {
String arr[];
New(String arr[]){
this.arr=arr;
}
void show(){
String s = Arrays.toString(arr);
System.out.println(s);
}
public static void main(String[] args)
{
String arr[]={ "The", "quick", "brown", "fox", "jumps","over", "the", "lazy", "dog" };
New t1=new New(arr);
t1.show();
}
```

```
}
```

6.10 What will be the Output of the below code:

```
package test;
class Add
{
int a;
Add(String a)
{
this.a=a.length();
this.sum(this);
}
void sum(Add A1)
{
int len=A1.a;
System.out.println("String length is:"+len);
}
}
public class New
{
public static void main(String arg[])
{
Add A=new Add("bennett");
}
}
```