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-4

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

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

4.1 What will be the Output of the below code:

```
public class Array
{
	public static void main(String args[])
	{
		int []arr = {1,2,3,4,5};
		System.out.println(arr[5]);
	}
}
```

4.2 What will be the Output of the below code:

```
class Test1 {
public static void main(String[] args)
	{
		int arr[] = { 11, 22, 33 };
		for (int i = 0; i < arr.length; i++)
			System.out.print(arr[i] + " ");

		System.out.println();

		int arr2[] = new int[3];
		arr2[] = { 11, 22, 33 };
		for (int i = 0; i < arr2.length; i++)
			System.out.print(arr2[i] + " ");
	}
}
```

4.3. What will be the output of the following program?

```
class Test1 {
	int x = 10;
public  static void main(String[] args)
	{
		Test1 t1 = new Test1();
```

```
                System.out.println(t1.x);
        }
        static
        {
                int x = 20;
                System.out.print(x + " ");
        }
}
```

4.4. What is the result of the following code?

```
class Test {
        static int i = 1;
public static void main(String[] args)
        {
                for (int i = 1; i < 10; i++) {
                        i = i + 2;
                        System.out.print(i + " ");
                }
        }
}
```

4.5 What is the output of following code?

```
class Test {
final int x = 10;
int y=10;
void my(){
y=21;
System.out.println(x+" "+ ++y);
}
public static void main(String[] args)
{
Test t1 = new Test();
t1.my();
}
}
```

4.6 What will be the output of following code?

```
class Test {
final static int x;
static{
x=21;
}
public static void main(String[] args){
System.out.println(x);
}
}
```

4.7 What would be the result of the following code?

```
class Test
{
   static int a;
   static
   {
      a = 4;
      System.out.println ("inside static block");
      System.out.println ("a = " + a);
   }
   Test()
   {
      System.out.println ("inside constructor");
      a = 10;
   }
   public static void func()
   {
      a = a + 1;
      System.out.println ("a = " + a);
   }
   public static void main(String[] args)
   {
      Test obj = new Test();
      obj.func();
   }
}
```

4.8 What will be the output of the following program?

```
class Profile {
private Profile(int w) {
System.out.println(w);
}
public static Profile() {
System.out.println(10);
}
}
class Test {
public static void main(String args[]) {
Profile p1 = new Profile(50);
}
}
```

4.9 What will be the Output of the below code:

```
class Test {
Test(){
}
static void Test() {
this();
}
```

```
public static void main(String args[]) {
Test();
}
}
```

4.10 What will be the Output of the below code:

```
final class Complex {
private double re, im;
public Complex(double re, double im) {
this.re = re;
this.im = im;
}
Complex(Complex c)
{
System.out.println("Copy constructor called");
re = c.re;
im = c.im;
}
public String toString() {
return "(" + re + " + " + im + "i)";
}
}
class Test {
public static void main(String[] args) {
Complex c1 = new Complex(10, 15);
Complex c2 = new Complex(c1);
Complex c3 = c1;
System.out.println(c2);
}
}
```