# School of Computer Science Engineering and Technology

Course- BTech | Type- Core
Course Code- **CSET109** | Course Name- **Object Oriented Programming Using Java**
Year- First | Semester- Even Batch- BTech 2nd Semester

## Tutorial-5

| Tutorial No. | Name | CO1 | CO2 | CO3 |
|---|---|---|---|---|
| 5 | Basics | ✓ | -- | -- |

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

5.1 Analyse the given program segment and predict the output:

```
public class GFG {
   static String Employee_name;
   static float Employee_salary;
   static void set(String n, float p) {
      Employee_name  = n;
      Employee_salary  = p;
   }
   static void get() {
      System.out.println("Employee name is: " +Employee_name );
      System.out.println("Employee CTC is: " + Employee_salary);
   }
   public static void main(String args[]) {
      GFG.set("Rathod Avinash", 10000.0f);
      GFG.get();
}
}
```

5.2 What will be the output of the following program?

```
public class College {
   public static void main(String[] args) {
      Student[] student = new Student[2];
      student[0] = new Student();
      student[0].name = "Khan";
      student[0] = new Student();
      student[0].name = "Kittu";
      student[1] = new Student();
      student[1].name = "Munna";
      for (Student element : student) {
         System.out.print(element.name + " ~ ");
      }
   }
}
class Student {
   String name;
}
```

5.3 Predict the output of the following program:

```
class A
{
   public A(String s)
   {
      System.out.print("A");
   }
}
 public class B extends A
{
   public B(String s)
   {
      System.out.print("B");
   }
   public static void main(String[] args)
   {
      new B("C");
      System.out.println(" ");
   }
}
```

5.4 What will be the output of the following program?

```
class ClassInheritance
{   public static void main(String s[])
   {
      A a = new A();
      a.i = 4;
      B b = new B();
      b.i = 10;
      b.j = 20;
      a = b;
      System.out.println("i = " + a.i);
   }
}
class A
{
   int i;
}
class B extends A
{
   int j;
}
```

5.5 What will be the output of the program?

```
class Temp
{
   private Temp(int data)
   {
      System.out.printf(" Constructor called ");
```

```
    }
    protected static Temp create(int data)
    {
        Temp obj = new Temp(data);
        return obj;
    }
    public void myMethod()
    {
        System.out.printf(" Method called ");
    }
}
 public class Test
{
    public static void main(String[] args)
    {
        Temp obj = Temp.create(20);
        obj.myMethod();
    }
}
```

5.6 What will be the output of this program?

```
class A
{
    static int i;
     static
    {
        System.out.println(1);
         i = 100;
    }
}
 public class StaticInitializationBlock
{
    static
    {
        System.out.println(2);
    }
     public static void main(String[] args)
    {
        System.out.println(3);

        System.out.println(A.i);
    }
}
```

5.7 What happens when you compile the below class?

```
class A
{
    int i;

    static
```

```
    {
        System.out.println(i);
    }
}
```

5.8 What will be the output of this program?

```
class A
{
    static int first;
     static String second;
     static
    {
        System.out.println(1);

        first = 100;
    }
     static
    {
        System.out.println(2);
        second = "SECOND";
    }
}
 public class StaticInitializationBlock
{
    static
    {
        System.out.println(3);
    }
    public static void main(String[] args)
    {
        System.out.println(4);
        System.out.println(A.first);
        System.out.println(A.second);
    }
}
```

5.9 What will be the output of the following program?

```
lass Base
{
    public static String s = " Super Class ";
    public Base()
    {
        System.out.printf("1");
    }
}
public class Derived extends Base
{
    public Derived()
    {
        System.out.printf("2");
```

```
        super();
    }
     public static void main(String[] args)
    {
        Derived obj = new Derived();
        System.out.printf(s);
    }
}
```

5.10 What will be the output of the following program?

```
class QuantityOnLiters {
    public float getQuantity() { // LINE 1
        return 1;
    }
}
class QuantityOnGrams extends QuantityOnLiters {
    public int getQuantity() { // LINE 2
        return 100;
    }
}
public class DemoOnQuantity {
    public static void main(String args[]) {
        QuantityOnGrams object = new QuantityOnGrams();
        System.out.println(object);
    }
}
```