# MANAV RACHNA UNIVERSITY, FARIDABAD
## Department of Computer Science and Technology

**Course: B.Tech. CSE**                                                 **Semester: III**

**Subject:  Object Oriented Programming using Java (CSH201B-T)**

### *Tutorial: 6 static, this, Overloading*

***Objective:*** *Problems on static, this keywords and method overloading in java*

 *Course Outcomes:*
**CSH201B.1:** To impart **understanding** of basic programming concepts in Java language.

**CSH201B.2:** To enable the student to articulate given program scenario and **apply** different programming constructs.

***Blooms Taxonomy Level****: BT1, BT2, BT3*

1.  Predict the output

```java
class access
    {
        public int x;
    static int y;
        void cal(int a, int b)
        {
            x +=  a ;
            y +=  b;
        }
    }
    class static_specifier
    {
        public static void main(String args[])
        {
            access obj1 = new access();
            access obj2 = new access();
            obj1.x = 0;
            obj1.y = 0;
            obj1.cal(1, 2);
            obj2.x = 0;
            obj2.cal(2, 3);
            System.out.println(obj1.x + " " + obj2.y);
        }
    }
```

2.  What is the output of this program?

**Course: B.Tech. CSE**                                                    **Semester: III**

**Subject:  Object Oriented Programming using Java (CSH201B-T)**

*Blooms Taxonomy Level: BT3*

```java
class access
{
   static int x;
   void increment()
   {
       x++;
   }
 }
class static_use
{
    public static void main(String args[])
    {
        access obj1 = new access();
        access obj2 = new access();
        obj1.x = 0;
        obj1.increment();
        obj2.increment();
        System.out.println(obj1.x + " " + obj2.x);
    }
}
```

3. What is process of defining two or more methods within same class that have same name but different parameters declaration?

   *Blooms Taxonomy Level: BT1*

4. What is the output of the following code?

   *Blooms Taxonomy Level: BT3*

```java
class San
{
 public void m1 (int i,float f)
 {
  System.out.println(" int float method");
 }

 public void m1(float f,int i);
  {
  System.out.println("float int method");
```

```java
}

public static void main(String[]args)
{
  San s=new San();
      s.m1(20,20);
}
}
```

5. What is the output of this program?

*Blooms Taxonomy Level: BT3*

```java
class overload
{
    int x;
double y;
    void add(int a , int b)
    {
        x = a + b;
    }
    void add(double c , double d)
    {
        y = c + d;
    }
    overload()
    {
        this.x = 0;
        this.y = 0;
    }
}
class Overload_methods
{
    public static void main(String args[])
    {
        overload obj = new overload();
        int a = 2;
        double b = 3.2;
        obj.add(a, a);
        obj.add(b, b);
        System.out.println(obj.x + " " + obj.y);
```

```
        }
    }
```

6.  Write a program in java that will justify the usage of constructor overloading? *BT4*
7.  What is this keyword in Java? *BT1*
8.  What do you mean by static method and class? Explain with Example *BT2*