



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

**Course: B.Tech. CSE**

**Semester: III**

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

***Lab: 06 Use of static and this keyword in Java***

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***Objective: Programs on static and this keyword 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***

- Q1. WAP in java to define a class MyNumber having one private int data member. Write a default constructor to initialize it to 0 and another constructor to initialize it to a value (Use this for initialization). Write methods isNegative(), isPositive(), isZero(), isOdd(), isEven(). Create an object in main(). Use Scanner class to pass a value to the object.
- Q2. Define a Student class (roll number, name, percentage). Define a default and parameterized constructor. Override the toString method. Keep a count of objects created.  
Create objects using parameterized constructor and display the object count after each object is created. (Use static member and method). Also display the contents of each object.
- Q3. Implement the following  
Box  
-Width: double  
-Height: double  
-Depth: double  
+Box(double,double,double)  
+Volume():double  
Write a class TestBox that will contain main method. Create two objects of Box namely box1 and box2 having values 10,20,30 and 5,8,9 respectively for width height and depth. Calculate the volume and print on console.