

**II B.Tech – II Semester  
(20ES4109) JAVA PROGRAMMING LAB**

Int. Marks	Ext. Marks	Total Marks	L	T	P	C
15	35	50	-	-	3	1.5

**Pre-Requisites: None**

**Course Objectives:**

- To understand object oriented concept
- To become familiar with classes and objects
- Understand various kinds of methods
- Introduce built-in and user defined exceptions
- To become familiar the concepts of AWT

**Exercise - 1 (Basics)**

- Write a JAVA program to display default value of all primitive data type of JAVA.
- Write a case study on public static void main (250 words).
- Five Bikers Compete in a race such that they drive at a constant speed which may or may not be the same as the other. To qualify the race, the speed of a racer must be more than the average speed of all 5 racers. Take as input the speed of each racer and print back the speed of qualifying racers.

**Exercise - 2 (Control -flow)**

- Write a JAVA program to search for an element in a given list of elements using binary search mechanism.
- Write a JAVA program to sort for an element in a given list of elements using bubble sort

**Exercise - 3 (Class, Objects)**

- Define a class called CalAge. This class is used to calculate age of a person from her or his date of birth and the current date. Include a mutator method that allows the user to enter her or his date of birth and set the value for current date. Also include a method to return the age in years and months (for example, 25.5 years) as a double value. Include an additional method to check if the date of birth entered by the user is a valid one. For example, 30 February 2008 is an invalid date. Embed your class in a test program.

**Course Outcomes:**

After successful completion of the course, the students can be able to

S.No	Course Outcome	BTL
1	Create simple applications using classes, objects and inheritance	
2	Apply parallel processing applications using threads	
3	Develop GUI applications using AWT	
4		
5		

**Correlation of COs with POs& PSOs:**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C01	3	1	-	-	1	-	-	-	3	-	-	-	3	3
C02	3	2	-	-	2	-	-	-	3	-	-	-	3	3
C03	3	3	1	1	2	-	-	-	3	-	-	-	3	3
C04	3	3	1	1	2	-	-	-	3	-	-	-	3	3
C05	3	2	1	1	2	-	-	-	3	-	-	-	3	3