

## Lab Assignment 3

### Programming Projects with Java1 (CA 3216)

1	Write a Java program to print numbers from <b>1 to 10</b> using a for loop.	CO4
2	WAP to print the <b>sum of the first N natural numbers</b> .	CO4
3	Write a program to reverse a given <b>number</b> .	CO4
4	Write a program to generate all unique combinations of 1,2 and 3 using for loops.	CO4
5	WAP to print all prime numbers from 1 to 100	CO4
6	Write a Java program to print the <b>multiplication table</b> of a given number.	CO4
7	WAP to find the factorial value of any number entered through the keyboard.	CO4
8	WAP to print out all Armstrong numbers between 1 and 500. If sum of cubes of each digit of the number is equal to the number itself, then the number is called an Armstrong number.	CO4
9	WAP to produce the following output. 1 2    3 4    5    6 7    8    9    10	CO4
10	WAP to print first 20 terms of fibonacci series.	CO4
11	WAP to print 24 hours of day with suitable suffixes like AM, PM, Noon and Midnight	CO4
12	Wap to find the <b>sum of even and odd digits</b> in a number separately	CO4
13	Write a Java program to calculate <b>power of a number</b> ( $x^y$ ) using loops.	CO4
14	Write a Java program to check whether a given number is a <b>palindrome</b> or not.	CO4
15	Write a program to find the <b>sum of digits</b> of a number.	CO4
16	Write a program to print all <b>even and odd numbers</b> between 1 and N separately	CO4
17	WAP to find the <b>LCM and GCD</b> of two numbers using loops.	CO4
18	Write a program that find the <b>smallest and largest digit</b> in a number	CO4
19	WAP to check if a number is <b>perfect</b> (sum of divisors = number) or not	CO4
20	WAP to print the pattern 1 0 1 1 0 1 0 1 0 1	CO4
21	WAP to print the pattern * * * * * * * * * * * * *	CO4

Course Outcomes		
CO1	To remember and comprehend the fundamental concepts of Java programming by reading, writing, executing, and debugging Java applications within the Eclipse framework. This includes the ability to	L1,L2
	understand and explain variables, constants, primitive data types, and core libraries along with their functionalities	

CO2	To apply operators and type casting mechanisms proficiently to manipulate and transform data within Java programs, ensuring accurate and efficient computation	L3,L4
CO3	To critically analyze and systematically implement conditional statements to effectively govern program flow based on diverse logical conditions	L3,L4
CO4	To design and critically evaluate iterative solutions utilizing loops to efficiently address repetitive computational problems	L5,L6
CO5	To design and proficiently manipulate arrays for systematic storage and management of data collections	L3,L6
CO6	Develop and implement modular programs using methods, and demonstrate object-oriented principles through classes, objects, and enumerations	L2,L3,L6