

BCA-1-01P: Computer Programming Lab

Total Marks: 50

External Marks: 15

Internal Marks: 35

Credits: 2

Pass Percentage: 40%

Course: Computer Programming Lab	
Course Code: BCA-1-01P	
Course Outcomes (COs)	
After the completion of this course, the students will be able to:	
CO1	Develop C programs to solve simple mathematical and decision making problems.
CO2	Develop, Debug and Execute programs to demonstrate the applications of arrays in C
CO3	Develop, Debug and Execute programs to demonstrate decision making and looping constructs in C
CO4	Develop, Debug and Execute programs to demonstrate the basic concepts of pointers in C
CO5	Implement programs to read from and write to files using C, including concepts such as file pointers and file I/O operations.

Detailed List of Programs:

Programme No.	Name of Program
P1	Write a simple program that prints "Hello, World!" to the console.
P2	Take two numbers as input and display their sum.
P3	Generate and print the multiplication table for a given number.
P4	Compute the factorial of a given number.
P5	Check whether a given number is prime or not.
P6	Generate and display the Fibonacci series up to a specified number of terms.
P7	Determine if a given number or string is a palindrome.
P8	Reverse a given string without using library functions.
P9	Implement a sorting algorithm (e.g., bubble sort, selection sort) for an array of integers.
P10	Search for an element in an array using linear search.
P11	Implement binary search for a sorted array.

P12	Perform addition of two matrices.
P13	Find and display the transpose of a matrix.
P14	Implement a program to calculate the power of a number using recursion.
P15	Create a basic calculator program that performs addition, subtraction, multiplication, and division.
P16	Compute the factorial of a number using a recursive function.
P17	Check whether a given number is an Armstrong number.
P18	Calculate the GCD of two numbers using Euclidean Algorithm.
P19	Convert a decimal number to its binary equivalent.
P20	Reverse the words in a given sentence without using library functions.
P21	WAP that swaps the values of two numbers using pointers.
P22	WAP that reverses an array using pointers.
P23	WAP that passes an array to a function and calculates the sum of its elements.
P24	WAP that reads data from a file and prints it to the console.
P25	WAP that appends data to an existing file.