



## P.B. SIDDHARTHA COLLEGE OF ARTS & SCIENCE

Siddhartha Nagar, Vijayawada – 520 010

Reaccredited at 'A+' level by NAAC

Autonomous & ISO 9001:2015 Certified

**Title of the Course: C PROGRAMMING LAB**

**Semester : I**

Course Code	23MA1L1	Course Delivery Method	Blended Mode
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	6	Semester End Exam Marks	70
Total Number of Lecture Hours	90	Total Marks	100
Year of Introduction : 2020-2021	Year of offering : 2023-2024	Year of Revision: 2023-24	Percentage of Revision :5%

**Course Objectives:** This course is designed to develop the programming skills of C-language through problem solving.

**Course Outcomes:** After successful completion of this course, students will be able to

CO1: illustrate and explain the basic computer concepts and programming principles of C language. (PO1)

CO2: develop C programs to solve simple mathematical and decision making problems. (PO3)

CO3: develop C programs to solve simple problems using looping constructs. (PO4)

CO4: develop C programs to demonstrate the applications of derived data types such as arrays and Pointers. (PO5)

CO5: develop C programs to demonstrate the applications of derived data types such as strings and functions. (PO5)

### LIST OF C – PROGRAMS :

1. To find factorial of a number. (CO5, L1)
2. To reverse a number. (CO1, L1)
3. To find GCD of two numbers using Euclidean algorithm. (CO3, L1)
4. To find Fibonacci numbers up to "N" (CO2, L2)
5. To find perfect numbers up to "N" (CO2, L2)
6. To find prime numbers up to "N" (CO1, L2)
7. To find sum of digits of a number. (CO3, L1)
8. To check a number palindrome or not. (CO3, L4)

9. To find the sum of squares of first ten natural numbers using function. (CO5, L3)
10. To find biggest of three numbers using function. (CO5, L4)
11. To find biggest element in an array. (CO4, L4)
12. To find the transpose of a Matrix. (CO4, L3)
13. To find the sum of the matrices. (CO4, L3)
14. To find the product of the matrices. (CO4, L3)
15. To find string length using user defined function. (CO5, L4)

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