I Year I Semester L T P C
Code: 17CS111 0 0 3 2

C PROGRAMMING LAB (Common to All Branches)

OBJECTIVES:

- 1. Understand the basic concept of C Programming, and its different modules that includes conditional and looping expressions, Arrays, Strings, Functions, Pointers, Structures and File programming.
- 2. Acquire knowledge about the basic concept of writing a program.
- 3. Role of constants, variables, identifiers, operators, type conversion and other buildingblocks of C Language.
- 4. Use of conditional expressions and looping statements to solve problems associated with conditions and repetitions.
- 5. Role of Functions involving the idea of modularity.

List of Experiments

- 1. Algorithms and Flow charts design and evaluation (Minimum 2)
- 2. Write C Programs to demonstrate C-tokens and operators
- 3. Write C Programs to demonstrate Decision Making And Branching (Selection)
- 4. Write a C program to demonstrate different loops
- 5. Write a C program to demonstrate arrays
- 6. Write a C program to demonstrate functions
- 7. Write a C program to implement the following
- a. To manipulate strings using string handling functions.
- b. To manipulate strings without using string handling functions
- 8. Write a C program to demonstrate different library functions
- 9. Write a C program to implement the following
- a. To exchange two values using call by value and reference
- b. To multiply two matrices using pointers
- 10. Write a C program to demonstrate functions using pointers
- 11. Write a C program to implement the following operations using structure and functions:
- 12. Reading a complex number
- 13. Writing a complex number
- 14. Write a C program
- a. To copy data from one file to another
- b. To reverse the first n characters in a given file (Note: The file name and n are specified on the command line)

List of Mini-Projects:

- 1. Merging of two arrays
- 2. Arithmetic operations on two complex numbers
- 3. Employee's Management System
- 4. Library management
- 5. Department store system
- 6. Personal Dairy Management System
- 7. Telecom Billing Management System

- 8. Bank Management System
- 9. Contacts Management
- 10. Medical Store Management System

COURSE OUTCOMES:

- 1. Apply and practice logical ability to solve the problems.
- 2. Understand C programming development environment, compiling, debugging, and linking
- 3. and executing a program using the development environment
- 4. Analyzing the complexity of problems, Modularize the problems into small modules and
- 5. thenconvert them into programs
- 6. Understand and apply the in-built functions and customized functions for solving the
- 7. problems.
- 8. Understand and apply the pointers, memory allocation techniques and use of files for dealing
- 9. withvariety of problems.
- 10. Document and present the algorithms, flowcharts and programs in form of user-manuals
- 11. Identification of various real time domains and programming resources in C through MiniProjects