

**SARDAR PATEL UNIVERSITY**  
**FYBCA (Semester – II)**  
**Advanced C Programming Lab**  
**US02MABCA02**

**Part – 1 User Defined Function****(Journal- P1, P2, P3, P4, P6)**

- 1 To add two integer numbers using user defined function with no return value and no argument.**
- 2 To find simple interest using UDF with no return value but having arguments.**
- 3 To find area of circle using UDF with return value but no arguments.**
- 4 To find maximum of two integer number using UDF with return value and arguments.**
- 5 To find out sum of array elements using UDF with no return value but with arguments.**
- 6 To find maximum element among array using UDF with return value and with arguments.**
- 7 To find factorial of a given number using UDF with recursion.**
- 8 To print Fibonacci series using UDF with recursion.**

**Part-2 Structures & Unions****(Journal:- P9, P11, P15, P16, P17)**

- 9 Write a C program to read and write library data like title of book, author, pages and price using structure.**
- 10 Define structure **Simple Interest**. Which containing three member amount, rate of interest and no. of years. Read the Value form User and find the Simple Interest.**
- 11 Create structure **Calculate**. Declare two members in this structure (x and Y).find the **Addition, Subtraction Multiplication and Division** of the member (Use concept of Initialization of Structure).**
- 12 WAP that read roll no. , name , marks of 3 subjects of a student using structure & print the result for same student with total marks and percentage.**
- 13 WAP that read roll no. , name , marks of 9 subjects of a student using array within structure & print the result for same student with total marks and percentage.**
- 14 WAP that read roll no. , name , marks of 3 subjects of n student using array of structure & print the result for each student with total marks and percentage.**
- 15 WAP that read roll no. , name , marks of 9 subjects of n student using array of structure and array within structure. Print the result for each student with total marks and percentage.**
- 16 WAP to read personal information about 10 people & then print information for the people living in a specific city.**
- 17 Write a C program to read student information like roll number, name and marks of 3 subjects using structure. Pass structure as an argument to user defined function and print the data in UDF.**

**Part-3 Pointers****(Journal: P19, P22, P24, P26, P29)**

- 18 WAP to input and print the value and address of an integer variable using pointer.
- 19 **WAP to input two numbers. Perform addition operation on them and print final answer using pointers.**
- 20 WAP to input two numbers. Find out maximum number from them using pointer. Display appropriate message.
- 21 WAP using pointers to exchange the values stored in two locations in memory.
- 22 **WAP using pointer to reverse the given no.**
- 23 Write a program using pointers to read an array of n elements and print all the elements of array.
- 24 **Write a program using pointers to read an array of n elements and print all the elements of array in reverse order.**
- 25 Write a program using pointers to read an array of n elements and print all the elements of array. Also find and print sum of all elements.
- 26 **Write a program using pointers to read an array of n elements and print all the elements of array. Also find and print sum of odd and even elements of array.**
- 27 Write a user defined function using pointers to find addition and subtraction of two numbers.
- 28 Write a user defined function using pointers to swap values of two variables.
- 29 **Write a user defined function using pointers to find simple interest.**

**Part-4 File Handling****(Journal: P30, P31, P32, P36, P39)**

- 30 **Write a program to read student number, name and city from the keyboard. Write these data into a file “stud1.txt”.**
- 31 **Write a program to read data from the file “stud1.txt” and display them on the screen.**
- 32 **Write a program to copy the contents of a file “stud1.txt” into another file “stud2.txt”.**
- 33 Write a program to read name of the file from user and check whether it is present or not in disk. Give an appropriate message.
- 34 Write a program to read name of the file from user and check whether it is present or not in disk. If present then display its contents on the screen, otherwise display an appropriate message.
- 35 Write a program to count total number of character from the given file.
- 36 **Write a program to find total number of uppercase letter, lowercase letter, blank space and special character from the given file.**
- 37 Write a program that will create a data file “cust.txt” containing complete customers information such as customer number, name, address contact number and email-id.(use structure variable)
- 38 Write a program to read a character and a file name. To count and print number of occurrences of a given character into a file.
- 39 **Write a program to merge two files into a single file. i.e. Append content of one file at the end of another file.**

**Note : Definitions with bold effect are to be written in journal.**