PPSL Experiment List 2024-25 AIML A & B

Exp no 1

Describe the problem-solving steps.

Exp no 2

Aim: To write a Pseudocode and draw a flowchart.

Practice Program

1. Display your details (name, roll no, address)
2. WAP to calculate sum of three numbers
3. Program to demonstrate local and global values

Final program to execute and write Pseudocode and flowchart

1. WAP to accept radius of a circle from the user. Calculate Area and Circumference of the circle.
2. WAP to accept two numbers and swap their values.

Exp no 3

Aim: Use mathematical operators and Basic Datatypes.

1. WAP to accept the character, integer, float, and double from user and display it.
2. Write a program to calculate the simple interest taking principal, rate of interest and number of years as inputs from user.
3. Write a program to accept the length and breadth of a rectangle from the user. Calculate and display the Area.
4. Write the program to demonstrate Type Conversion. Accept input of two numbers a & b (one as integer datatype and one float datatype). Divide the two numbers and display the result in float
5. Write the program type Casting Accept two numbers in integers. Perform Division and store the result in Float.
6. Write a program to accept a two-digit number and display it in reversed form

Experiment no 4

Aim : To write and execute C programs using branching statements.

I. Accept a number from user and display if number is positive, negative or zero

II. Accept three numbers from user and display the largest number.
   a. Using if else if ladder
   b. Using ternary operator

III. Write a program to accept the input from the user and display if the number is even or odd.

IV. Write a program to accept the year from the user and display if it is a leap year or not.

V. Write a program to accept the length of three sides of a triangle and to test and print the type of triangle as equilateral, isosceles or scalene or none.

VI. Accept the percentage from the user and display the grade. (90 & above "A", 81 TO 89 "B" 71 to 79 "C" 61 to 69 "D" else F)

VII. Write a program to implement calculator (add, sub, mul, div and modulo) using switch case

Experiment no 5

I. Write a program to display the first n natural numbers, where the value of n is taken from user using for, while and do-while loop.

II. Write a program to display the sum of first n natural numbers

III. Write a program to display even and odd numbers upto n. n is taken from user. Ask user if he wants to display even or odd numbers.

IV. Write a program to display factorial of a number

V. Write a program to separate digits of input 4-digit integer, separate and display its digits

VI. Write a program to display the reverse of the user entered number

Experiment no 6

I. Write a program to check if the entered number is Armstrong or not

II. WAP to display Fibonacci series upto n. (n taken from user)

III. Write a program to implement calculator (add, sub, mul, div and modulo) using switch case. Iterate the same using do while loop

IV. Write a program to check if the entered number is prime or not.

Experiment no 7

Write a program to display the following for the users specified number of lines.

```
*
**
***
****
*****
```

n lines

```
1
12
123
1234
12345
123456
```

```
1              1
22             2 3
333            4 5 6
4444           7 8 9 10
```

Experiment no 8

5. I. Write a program to add two numbers using function
   a. function with return type and with parameters
   b. function without return type and with parameters

II. Create a function for addition, subtraction and multiplication. Accept two inputs from user and pass as parameter

III. Write a program to find the factorial of a number using a function.

IV. Write a program to find Armstrong number using function

V. Write a program to find the factorial of a number using a RECURSIVE function.

Experiment no 9

I. Write a program to accept 'n' integers from user into an array and display them

II. Write a program to accept 'n' integers from user into an array and display the sum of these numbers.

III. Write a program to search an element in an array and display the index of the element.

IV. Write a program to sort numbers in ascending order. (implement bubble sorting algorithm)

V. Write a program to accept the two dimensional matrix and display the original matrix and its transpose.

VI. Write a program to accept the two dimensional matrix A and B and perform their addition.

VII. Check whether string is palindrome or not.

VIII. Write a program to carry out following operations on strings using library functions.

(a) To concatenate a string S2 to string S1.
(b) To find the length of a given string.
(c) To compare two strings S1 and S2.
(d) To copy a string S2 to another string S1

Experiment no 10

I. Write a program with function to swap values of two elements (call by reference & call by reference).

II. Perform basic file operations using C programs