|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |  |
| --- | --- | --- |
| 13CS10P1 | - | Programming Laboratory |

 |
|  |  |  |
| Hours / Week | : | 3 |  | Day-to-day Evaluation and a Test | : | 40 |
| Credits | : | 2 |  | End Examination Marks | : | 60 |

|  |
| --- |
| 1. Write a C program to implement the following
	* 1. Convert Centigrade to Fahrenheit and vice versa ( f=(9/5)\*c+32 )
		2. Sum of the n natural numbers ( (n(n+1))/2 )
		3. Sum of the squares of the n natural numbers ( (n(n+1)(2n+1))/6 )
		4. Slope and midpoint of line using its end points (slope = (y2-y1)/(x2-x1),midpoint -> x=x1+x2/2, y=y1+y2/2 )
		5. Quotient and remainder based on two integers i and j. (q = i/j, r = i-q\*j)
		6. Area and circumference of a circle ( πr2 & 2πr)
 |
| 1. Compute all possible roots of a quadratic equation of the form ax2+bx+c=0.
 |
| 1. Write a C program to arrange three numbers in ascending order using
	* 1. Ternary operator
		2. if statement .
 |
| 1. Write a C program to
	* 1. Find the grade of a student by reading marks
		2. Convert the given digit into word.
 |
| 1. Write a C program to implement the arithmetic operations (+,-,\*, %) using switch case statement.
 |
| 1. Write a C program to find the
	* 1. Factorial of a number
		2. G.C.D of two numbers.
 |
| 1. Write a C program to
	* 1. To find the sum of individual digits of a given number
		2. Reduce the number to a single digit.
 |
| 1. Write a C program to print
	* 1. Prime numbers from 1 to n
		2. Pascal triangle.
 |
| 1. Write a C program to find
	* 1. The largest and smallest number in a list of integers
		2. Sum of 1! +2! +3! +-----+n! using while loop.
 |
| 1. Write a C program to evaluate 1-1/2! +1/3!-1/4! +-----+1/n! using for loop.
 |
| 1. Write a C program to implement Fibonacci series using do while loop.
 |
| 1. Write a C program to evaluate the sum of series 1+x/1! +x2/2! +x3/3!...n!.
 |
| 1. Write a C program to implement the following
	* 1. Length of the given string
		2. Reverse of the given string
		3. Copy one string into another
		4. Comparison of two strings
		5. Concatenation of strings
		6. String handling functions (any five)
 |
| 1. Write a C program to check whether the given string is a palindrome or not.
 |
| 1. Write a C program to implement
	* 1. Matrix addition
		2. Matrix multiplication.
 |
| 1. Write a C program to implement factorial of a given number using recursion.
 |
| 1. Write a C program to implement
	* 1. Employ salary calculation
		2. Student percentage Calculation.
 |
| 1. Write a function that returns a union with values of say Basic, DA, HRA etc. at different times based on the argument passed. Compute the salary of the employee in main function after calling the above function repeatedly.
 |
| 1. Write a C program to implement pointer arithmetic.
 |
| 1. Write a C program for
	* 1. Call by value
		2. Call by reference.
 |
| 1. Write a C program to find minimum and maximum values in a given array using pointers.
 |
| 1. Write a C program to display
	* 1. Five arguments from command line arguments
		2. Addition of two numbers using command line arguments.
 |
| 1. Write a C program to implement stacks using arrays.
 |
| 1. Write a C program to implement Single Liked List operations.
 |
| 1. Write a C program to
	* 1. Convert infix to postfix expression.
		2. Evaluate Postfix expression.
 |
| 1. Write a C program to implement
	* 1. Linear search
		2. Binary search.
 |
| 1. Write a C program to implement
	* 1. Bubble sort
		2. Selection sort.
 |
| 1. Write a C program to implement Single Liked List operations.
 |