SCSA2101	PYTHON AND PROBLEM SOLVING TECHNIQUES LAB	L	T	P	Credits	Total Marks
		0	0	4	2	100

COURSE OBJECTIVES
- ➤ Identify the problem.
- ➤ List the possible ways to obtain the solution.
- ➤ Evaluate and Select the Best algorithm to solve the problem.
- ➤ Deploy suitable methods to get the desired output.
- ➤ Call the methods in order.

SUGGESTED LIST OF EXPERIMENTS
1. Program to exchange the values of two variables.
2. Program to circulate the values of n variables.
3. Program to find distance between two points.
4. Program to find square root.
5. Program to find GCD.
6. Program to find Exponentiation.
7. Program to find sum an array of numbers.
8. Program to find factorial.
9. Program to implement Sine function computation.
10. Program to Generate the Fibonacci sequence.
11. Program for Reversing the digits of an integer.
12. Program to find the smallest divisor of an integer.
13. Program to find the greatest common divisor of two integers.
14. Program to Generate Prime Numbers.
15. Program to Compute the Prime Factors of an integer.
16. Program to Raise a Number to a Large Power.
17. Program for Removal of Duplicates.
18. Program for Partitioning.
19. Program to find the kth smallest Element.
20. Program to generate histogram.

COURSE OUTCOMES
On completion of the course, student will be able to
CO1 - Analyze and classify the given problem into various modules.
CO2 - Design the program with basic syntax by reading input from the user and generating the desired output.
CO3 - Develop the codes containing looping and decision making statements.
CO4 - Implement user defined functions.
CO5 - Apply recursion and call the function with appropriate parameters.

SCSA2105	PROBLEM SOLVING TECHNIQUES LAB	L	T	P	Credits	Total Marks
		0	0	4	2	100

COURSE OBJECTIVES

- ➤ Identify the problem.
- ➤ To analyse the various steps in program development.
- ➤ Evaluate and select the best algorithm to solve the problem.
- ➤ Deploy suitable methods to get the desired output.
- ➤ Create the solutions for various Real-World Problems

SUGGESTED LIST OF EXPERIMENTS:

1. Program to find GCD.
2. Program to find the max and min from the three numbers.
3. Program to find Exponentiation.
4. Program to find sum of an array of numbers.
5. Program to implement Sine function computation.
6. Program to Generate the Fibonacci sequence.
7. Program to find the roots of a Quadratic equation.
8. Program for reversing the digits of an integer.
9. Program to find the smallest divisor of an integer.
10. Program to Generate Prime Numbers.
11. Program to Raise a Number to a Large Power.
12. Program for Removal of Duplicates.
13. Program to find the kth smallest Element.
14. Program to generate histogram.
15. Program for addition and multiplication of matrices.
16. Program that converts a number ranging from 1 to 50 to Roman equivalent
17. To delete n Characters from a given position in a given string.
18. Program to search for a Key value in a given list of integers using linear search method.
19. Program to sort the number in ascending and descending order.
20. Program for finding the factorial using recursive and non-recursive functions

COURSE OUTCOMES

On completion of the course, student will be able to

CO1: Analyse and classify the given problem into various modules

CO2: Analysing the complexity of problems, modularize the problems into small modules and then convert them into programs.

CO3: Develop the codes containing looping and decision-making statements.

CO4: Implement user defined functions.

CO5: Apply recursion and call the function with appropriate parameters.

CO6: Design and develop solutions to real world problems