# List of New Courses Introduced in the Academic Year 2019-2020

## **ODD SEM**

S.No	Course Code	Name of the Course
1	SCSA2105	Problem Solving Techniques Lab

SCSA2105
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PROBLEM SOLVING TECHNIQUES	L	Т	Р	Credits	Total Marks
LAB	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 •

#### 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.
- Program to find the roots of a Quadratic equation. 7.
- 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