

## **PART A - C PROGRAMMING**

1. Find roots of a quadratic equation
2. Find the sum of digits and reverse of a number
3. Find the factorial of a number
4. Display pyramid using ‘\*’
5. Check for leap year
6. To display count of +ves, -ves and zeros in a set of N numbers
7. Find first n prime numbers
8. Find LCM and HCF of 2 numbers
9. To print Armstrong numbers within range
10. Convert a decimal number to a new base
11. To calculate the standard deviation of N numbers
12. Find the decimal equivalent of number (base other than 10)
13. To merge two arrays
14. To find N<sup>th</sup> Fibonacci number
15. To find the trace of a square matrix
16. To sort n numbers
17. Find the number of words in a given sentence
18. Find the number of vowels in a strings
19. To generate mark list of N students using array of structures
20. To find the length of string using pointer

## **PART B - DATASTRUCTURE USING C**

1. Reverse a string using pointer
2. Sort a given list of strings
3. Merge two sorted arrays into one sorted array
4. Search an element in one dimensional array using linear search
5. Search an element in one dimensional array using recursive binary search
6. Implement Pascal triangle using two dimensional arrays

7. Read a sparse matrix and display its triplet representation using array
8. Create a singly linked list of N nodes and display it
9. Delete a given node (by position) from a singly linked list
10. Create a singly linked list and search an element from that list
11. Create a doubly linked list of integers and display in forward and backward direction
12. Implement polynomial using array
13. Implement stack operations (push & pop) using array
14. Implement queue operations (insertion & deletion ) using array
15. Evaluation of postfix expression using array
16. Implement quick sort using array
17. Implement bubble sort using array
18. Implement selection sort using array
19. Implement insertion sort using array