Sr. No	Title of Experiments
1.	Write a Python program to compute following computation on matrix: a) Addition of two matrices b) Transpose of a matrix
2.	Write a Python program to compute following computation on matrix: a) Subtraction of two matrices b) Multiplication of two matrices
3.	Write a Python program to compute following operations on String: a) To display word with the longest length b) To determines the frequency of occurrence of particular character in the string c) To display index of first appearance of the substring
4.	Write a Python program to compute following operations on String: a) To check whether given string is palindrome or not b) To count the occurrences of each word in a given string
5.	In second year computer engineering class, group A student's play cricket, group B students play badminton and group C students play football. Write a Python program using functions to compute following: a) List of students who play both cricket and badminton b) Number of students who play neither cricket nor badminton
6.	In second year computer engineering class, group A student's play cricket, group B students play badminton and group C students play football. Write a Python program using functions to compute following: a) List of students who play either cricket or badminton but not both b) Number of students who play cricket and football but not badminton.
7.	Write a Python program to store roll numbers of student in array who attended training program in random order. Write function for searching whether particular student attended training program or not, using Linear search and Binary search.
8.	Write a Python program to store roll numbers of student array who attended training program in sorted order. Write function for searching whether particular student attended training program or not, using Linear search and Fibonacci search.

9.	Write a Python program to store roll numbers of student in array who attended training program in random order. Write function for searching whether particular student attended training program or not, using Sentinel search and Binary search.
10.	Write a Python program to store roll numbers of student array who attended training program in sorted order. Write function for searching whether particular student attended training program or not, using Sentinel search and Fibonacci search.
11.	Write a Python program to store first year percentage of students in array. Write function for sorting array of floating point numbers in ascending order using Selection Sort display top five scores.
12.	Write a Python program to store first year percentage of students in array. Write function for sorting array of floating point numbers in ascending order using Bubble Sort display top five scores.
13.	Write a Python program to store first year percentage of students in array. Write function for sorting array of floating point numbers in ascending order using quick sort and display top five scores.
14.	Second year Computer Engineering class, set A of students like Vanilla Ice-cream and set B of students like butterscotch ice-cream. Write C++ program to store two sets using linked list. compute and display- a) Set of students who like both vanilla and butterscotch b) Number of students who like either vanilla or butterscotch
15.	Second year Computer Engineering class, set A of students like Vanilla Ice-cream and set B of students like butterscotch ice-cream. Write C++ program to store two sets using linked list. compute and display- a)Set of students who like either vanilla or butterscotch or not both b) Number of students who like neither vanilla nor butterscotch
16.	Write C++ program for storing binary number using doubly linked lists. Write functions- a) To compute 1‘s complement b) Add two binary numbers
17.	Write C++ program for storing binary number using doubly linked lists. Write functions- a) To compute 2‘s complement b) Add two binary numbers
18.	A palindrome is a string of character that‘s the same forward and backward. Typically, punctuation, capitalization, and spaces are ignored. For example, “Poor Dan is in a droop” is a palindrome, as can be seen by examining the characters “poor dan is in a droop” and observing that they are the same forward and backward. One way to check for a palindrome is

	to reverse the characters in the string and then compare with them the original-in a palindrome, the sequence will be identical. Write C++ program with functions- To print original string followed by reversed string using stack
19.	A palindrome is a string of character that's the same forward and backward. Typically, punctuation, capitalization, and spaces are ignored. For example, "Poor Dan is in a droop" is a palindrome, as can be seen by examining the characters "poor dan is in a droop" and observing that they are the same forward and backward. One way to check for a palindrome is to reverse the characters in the string and then compare with them the original-in a palindrome, the sequence will be identical. Write C++ program with functions- To check whether given string is palindrome or not
20.	In any language program mostly syntax error occurs due to unbalancing delimiter such as (),{},[]. Write C++ program using stack to check whether given expression is well parenthesized or not.
21.	Queues are frequently used in computer programming, and a typical example is the creation of a job queue by an operating system. If the operating system does not use priorities, then the jobs are processed in the order they enter the system. Write C++ program for simulating job queue **using Linked list**. Write functions to add job and delete job from queue.
22.	Queues are frequently used in computer programming, and a typical example is the creation of a job queue by an operating system. If the operating system does not use priorities, then the jobs are processed in the order they enter the system. Write C++ program for simulating job queue **using Array**. Write functions to add job and delete job from queue.
23.	A double-ended queue (deque) is a linear list in which additions and deletions may be made at either end. Obtain a data representation mapping a deque into a one- dimensional array. Write C++ program to simulate deque with functions to add and delete elements from either end of the deque.
24.	Pizza parlor accepting maximum M orders. Orders are served in first come first served basis. Order once placed cannot be cancelled. Write C++ program to simulate the system using circular **queue using array.**
25.	Pizza parlor accepting maximum M orders. Orders are served in first come first served basis. Order once placed cannot be cancelled. Write C++ program to simulate the system using **circular queue using linked list**.