Lab Cycle 1

1. Write a Python program to find the roots of a quadratic equation
2. Program to find square root of given number.
3. Design a desktop calculator program
4. A simple program to demonstrate bitwise operators.
5. A program to output the number of days in a month when given the month name and year
6. A menu driven program to find the properties of numbers.(Prime, Armstrong, Strong, Perfect) (create user defined functions)
7. A program to demonstrate the functions in math module and ord( ), chr( ), id( ), type( ) functions
8. Create recursive functions for GCD, Fibonacci, factorial and Towers of Hanoi problems
9. Programs on List Processing. (Sorting, Searching, Permutations...)
10. A program to find C (n, r). Use it to print Pascal's triangle.
11. Write Python program that accepts a sentence and calculate the number of words, digits, uppercase letters and lowercase letters.
12. Write Python Program to Count the Occurrences of Each Word and Also Count the Number of Words in a "quotes.txt" File
13. Explain the following list methods with an example. a) append() b) extend() c) insert() d) index() e) sort()
14. Write Python program to multiply two matrices using nested loops.
15. A program to perform transpose of a matrix.
16. Write Python program to find Mean, Variance and Standard Deviation for a list of numbers.
17. Discuss the following dictionary methods with an example.
    a) get() b) keys() c) pop() d) update() e) values() f) items()
18. Create a user defined function to check whether a given string is Palindrome or not.
19. Write a program to insert a value at a given position in a tuple.
20. A program to remove duplicates from a list