Computer Science

Class XII

Holidays Homework

Write a program using Python Programming

● Input a welcome message and display it.

● Input two numbers and display the larger / smaller number.

● Input three numbers and display the largest / smallest number.

● Given two integers x and n, compute 𝑥 n

● Write a program to input the value of x and n and print the sum of the following series:

1+x+x2+x3+x4+.............xn

1-x+x2-x3+x4-.............xn

 x + x2 - x3 + x4 - .............xn

 2 3 4 n

x + x2 - x3 + x4 - .............xn

 2! 3! 4! n!

● Determine whether a number is a perfect number, an armstrong number or a palindrome.

● Input a number and check if the number is a prime or composite number.

● Display the terms of a Fibonacci series.

● Compute the greatest common divisor and least common multiple of two integers.

● Count and display the number of vowels, consonants, uppercase, lowercase characters in string.

● Input a string and determine whether it is a palindrome or not; convert the case of characters in a string.

● Find the largest/smallest number in a list/tuple

● Input a list of numbers and swap elements at the even location with the elements at the odd location.

● Input a list of elements, sort in ascending/descending order using Bubble/Insertion sort.

● Input a list/tuple of elements, search for a given element in the list/tuple.

● Input a list of numbers and test if a number is equal to the sum of the cubes of its digits. Find the smallest and largest such number from the given list of numbers.

● Create a dictionary with the roll number, name and marks of n students in a class and display the names of students who have marks above 75.