XI COMPUTER SCIENCE PRACTICAL LIST

S.No.	Unit Name	Marks (Total=30)
1.	**Lab Test (12 marks)**	
	Python program (60% logic + 20% documentation + 20% code quality)	**12**
2.	**Report File + Viva (10 marks)**	
	Report file: Minimum 20 Python programs	**7**
	Viva voce	**3**
3.	Project (that uses most of the concepts that have been learnt)	**8**

S.No.	Aim/Title	Date of practical	Page No.	Signature
1.	**Introduction to Computer System Organization (Draw & explain functional diagram of computer and explain the I/P , O/P Devices, software, hardware, memory and operating system)**			
2.	**Introduction to python programming language (write about the python history installation and features of python & various python interpreter)**			
3.	**Write a python program to Input a welcome message and display it.**			
4.	**Write a python program to Input two numbers and display the larger / smaller number.**			
5.	**Write a python program to Input three numbers and display the largest / smallest number.**			
6.	**Write a python program to input two integers x and n, compute x^n**			
7.	**Write a python program to Generate the following patterns using nested loop.** Pattern-1: `*` / `**` / `***` / `****` / `*****` Pattern-2: `1 2 3 4 5` / `1 2 3 4` / `1 2 3` / `1 2` / `1` Pattern-3: `A` / `AB` / `ABC` / `ABCD` / `ABCDE`			
8.	**Write a python program to input the value of x and n and print the sum of the following series:**			

	i) $1+x+x^2+x^3+x^4+\ldots\ldots\ldots x^n$ ii) $1-x+x^2-x^3+x^4+\ldots\ldots\ldots x^n$ iii) $x+x^2/2-x^3/3+x^4/4+\ldots\ldots\ldots x^n/n$ iv) $x+x^2/2!-x^3/3!+x^4/4!+\ldots\ldots\ldots x^n/n!$			
9.	Write a python program to determine whether a number is a perfect number, an Armstrong number or a palindrome.			
10.	Write a python program to Input a number and check if the number is a prime or composite number.			
11.	Write a Python Program to print Fibonacci series up to the entered n positive number.			
12.	Write a Python Program to Compute the greatest common divisor(GCD/HCF) and least common multiple (LCM) of two Integers.			
13.	Write a Python Program to Count and display the number of vowels, consonants, uppercase, lowercase characters in string.			
14.	Write a Python Program to Input a string and determine whether it is a palindrome or not; convert the case of characters in a string.			
15.	Write a Python Program to find the largest/smallest number in a list/tuple and displaying the position of that number			
16.	Write a Python Program to Input a list of numbers and swap elements at the even location with the elements at the odd location.			
17.	Write a Python Program to Input a list/tuple of elements, search for a given element in the list/tuple and frequency and position of search element.			
18.	Write a Python Program to 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.			
19.	Write a Python Program to 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.			
20.	Write a Python Program to Create a dictionary of employee information (empid, empname,empsal,empmobile), input five values from the user and display the employee who is getting salary less than or equal to Rs. 50000.			

21.	**Write a Python Program to Create a dictionary of Library information (bookid, bookname, bookprice, bookauthor), input five values from the user and display the library, also change some values by searching the bookname in this dictionary.**			
22.	**Write a Python Program to Create a hotel dictionary (bookingid, clientname, date, roomno) delete a value based on bookingid.**			
23.	**Write a Python Program to implement python maths function/method (pi, e, sqrt, ceil,floor, pow, fabs, sin, cos, tan) using math module.**			
24.	**Write a Python program to implement the random function random, randint, Randrange using random module.**			
25.	**Write a Python program to implement the statistics functions (mean, median, mode) using statistics module.**			

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