Index

Sr. No	Practical Description	Marks	Sign with Date
1	Write a python code to Generate Personalized Greeting.		
2	Write a python program to calculate areas of any geometric figures like circle, rectangle and triangle.		
3	Write a Python program to calculate the gross salary of an employee. The program should prompt the user for the basic salary (BS) and then compute the dearness allowance (DA) as 70% of BS, the travel allowance (TA) as 30% of BS, and the house rent allowance (HRA) as 10% of BS. Finally, it should calculate the gross salary as the sum of BS, DA, TA, and HRA and display the result.		
4	Write a Python program to explore basic arithmetic operations. The program should prompt the user to enter two numbers and then perform addition, subtraction, multiplication, division, and modulus operations on those numbers. The results of each operation should be displayed to the user.		
5	Develop a Python program to manage a task list using lists and tuples, including adding, removing, updating, and sorting tasks.		
6	Create a Python code to demonstrate the use of sets and perform set operations (union, intersection, difference) to manage student enrollments in multiple courses / appearing for multiple entrance exams like CET, JEE, NEET etc.		
7	Write a Python program to create, update, and manipulate a dictionary of student records, including their grades and attendance.		
8	Develop a Python program that takes a numerical input and identifies whether it is even or odd, utilizing conditional statements and loops.		
9	Design a Python program to compute the factorial of a given integer N.		

10	Using a function, write a Python program to analyze whether the input number is prime or not.		
11	Implement a simple Python calculator that takes user input and performs basic arithmetic operations (addition, subtraction, multiplication, division) using functions.		
12	Develop a Python program that reads a text file and prints words of specified lengths (e.g., three, four, five, etc.) found within the file.		
13	Create an executable file for any program developed in earlier practical time.		
14	Write a Python program that takes two numbers as input and performs division. Implement exception handling to manage division by zero and invalid input errors gracefully.		
15	Demonstrate the use of a Python debugger (e.g., pdb or an IDE with debugging capabilities) on a sample program with intentional errors. Guide students on setting breakpoints, stepping through code, and examining variable values.		
16	Write a Python script that prompts the user to enter their phone number and email ID. It then employs Regular Expressions to verify if these inputs adhere to standard phone number and email address formats.		
17	Create a program that reads a text file containing various data (e.g., names, emails, phone numbers). Use regular expressions to extract specific types of data.		
18	Write a Python program to create a 1D, 2D, and 3D NumPy array. Perform basic operations like reshaping, slicing, and indexing.		
19	Develop a Python script to create two arrays of the same shape and perform element-wise addition, subtraction, multiplication, and division. Calculate the dot product and cross product of two vectors.		
20	Write a Python program to calculate mean, median, standard deviation, variance, and correlation coefficients of a given array.		