GLS UNIVERSITY

FACULTY OF COMPUTER APPLICATIONS & INFORMATION TECHNOLOGY

221601505 PRACTICALS ON PYTHON

iMSCIT Sem – V

Unit 2 Practical Assignment

Date of Submission : 22/08/25

Sr. No.	Question
1	Write a Python program to input a list of student marks, find average, and print 'Pass with Distinction' if average ≥ 85, 'Pass' if ≥ 50, else 'Fail'. Also, count how many subjects are failed (<35).
2	Accept an integer input and display a right-angled number triangle pattern using nested loops. Example for input 4: 1 2 3 4 5 6 7 8 9 10
3	Write a program to input a list of 10 names and check if there are any duplicate entries. If yes, display the duplicates.
4	Accept a tuple of integers and count how many elements are divisible by 3 but not by 5. Also, calculate their sum.
5	Create a dictionary of city names and temperatures. Remove all cities with temperature < 15°C or > 40°C, and display the cleaned dictionary.
6	Take 10 user inputs. If the number is prime, skip it (use `continue`). If it is divisible by 10, stop the loop (use `break`). Use `else` to confirm normal loop completion.
7	Create a program to input two lists and convert them into a dictionary using one as keys and one as values. Swap key-value pairs and display the reversed dictionary.
8	Create a set of vowels found in a user-given sentence. Then convert the set to a frozenset and try to remove an element (handle the exception).
9	Given a list of integers, print the square of even numbers and cube of odd numbers using `enumerate()` and list comprehension.
10	Write a program to manage a contact book using dictionary. Allow user to add, update, delete, and search contacts using menu-driven approach.
11	Write a Python program to print a square pattern with diagonals. Example for input 5: * * * *

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12	Input a paragraph and count the number of words, vowels, and consonants. Store word frequencies in a dictionary.
13	Continuously accept integers until a negative number is entered. Calculate sum, average, and count of positive numbers entered.
14	Write a program to find common elements between two tuples without converting them to lists or sets.
15	Write a Python program that accepts 5 strings and displays the longest and shortest strings.
16	Create a dictionary of student names and a list of their marks in 3 subjects. Calculate and store the average for each student. Display the dictionary with names and averages.
17	Accept a number from the user and reverse it using a while loop (without converting it into a string).
18	Write a program to input a tuple of strings and find how many strings contain only vowels.
19	Create a list of 10 random numbers and remove all elements greater than the average of the list. Display final list.
20	Write a program that simulates a basic bank transaction system using dictionary: account numbers as keys and balance as values. Allow user to deposit, withdraw, and check balance.