Techno College of Engineering Agartala

An Engineering College Approved by AICTE, MHRD, Govt. of India

Affiliated to Tripura University (A Central University),

Department of Computer Science and Engineering (Artificial Intelligence and Data Science)

List of Laboratory Experiments

Python Programming Lab							
Course Code	**Hours / Week**				**Maximum Marks**		
ES 307	L	T	P	C	CIA	SEE	Total
	0	0	2	1	40	60	100

Number of classes: 24 Hours	**Prerequisites: Nil**
Branch: CSE(AIDS)	**Semester: III**

Course overview:

The Python Programming lab introduces students to the fundamentals of programming using Python. It covers key concepts such as variables, data types, control structures, functions, loops, lists, tuples, dictionaries, and file handling. The lab emphasizes hands-on practice to develop problem-solving and logical thinking skills. Students also explore modules, exception handling, and basic object-oriented programming. By the end of the lab, learners gain practical experience in writing efficient, readable, and modular code, preparing them for advanced topics and real-world applications.

Course objectives:

i. To understand the basic syntax, data types, and control structures of Python.
ii. To develop problem-solving skills through hands-on programming exercises.
iii. To implement functions, file handling, and exception handling in Python programs.
iv. To introduce object-oriented programming concepts and modular coding practices.

Course outcomes:

CO Number	CO Description	K-level
CO-1	To discuss the art and science of computer programming.	K2
CO-2	Explain program related to List and dictionary.	K3
CO-3	To analyze and debug programs (find out what is wrong and fix it).	K4
CO-4	Formulate program to explain programming basics.	K5

Sl. No.	EXPERIMENT NAME	CO
1.	First program in python.	CO-1
2.	Programs related to basic input/ output.	CO-1
3.	Programs related to variables, strings, and numbers.	CO-1

4.	Programs related to Lists and Tuples.	CO-2
5.	Programs related to Functions	CO-1
6.	Programs related to If Statements	CO-1
7.	Programs related to While Loops and Input	CO-1
8.	Programs related to Basic Terminal Apps	CO-3
9.	Programs related to Dictionaries.	CO-2
10.	Programs related to Classes.	CO-4
11.	Programs related to Exceptions.	CO-3
12.	Programs related to GUI programming.	CO-4
13.	Using Word, Excel, PDF files in python.	CO-4
14.	Web programming in python, Case study of application areas of python.	CO-4