

PYTHON PROGRAMMING

Syllabus

UNIT I

15 Hrs.

Introduction: Introduction to Python, Python overview, Getting started with python, Comments, Identifiers, Reserved keywords, Variables, Standard Data Types, Operators, Statements and Expressions, String Operations, Boolean Expressions. Control Statements- for, while, if elif else, while.

UNIT II

15 Hrs.

Functions: Built-in Functions, Composition of Functions, User Defined Functions, Parameters and Arguments, Function Calls, Python Recursive Function, The Anonymous Functions, Writing Python Scripting.

UNIT III

15 Hrs.

Strings and Lists: Strings - Compound Data type, len Function, String Slices, Strings are immutable, Escape Characters, String Formatting Operator, String Formatting Functions. Lists - Values and Accessing Elements, Traversing a List, Deleting Elements from List, Built-in List Operators, Built –in List Methods.

UNIT IV

15 Hrs.

Tuples and Dictionaries: Tuples -Creating Tuples, Accessing Values in Tuples, Tuple Assignment, Tuples as Return Values, Basic Tuples Operations, Built-in Tuple Functions. Dictionaries -Creating a Dictionary, Accessing Values in a Dictionary, Updating Dictionary, Deleting Elements from Dictionary, properties of Dictionary Keys.

UNIT V

15 Hrs.

Files and Exceptions: Text Files - Different modes of opening the file, closing a file, writing to a file, Reading from a File, Directories - Exceptions - Built-in Exceptions, Handling Exceptions, Exception with Arguments, User-Defined Exceptions.

Text Book

Sl. No.	Author Name	Title of the Book	Publisher	Year and Edition
1	E.Balagurusamy	Introduction to Computing and Problem Solving Using Python	McGraw Hill Education	2016, 1 st Edition

Web Resources

1. http://spoken-tutorial.org/tutorial-search/?search_foss=Python&search_language=English
2. <http://nptel.ac.in/courses/117106113/34>
3. <https://swayam.gov.in/courses/3544-computational-science-and-engineering-using-python>
4. <https://swayam.gov.in/courses/4178>