

PYTHON PROGRAMMING

SYLLABUS

DEPARTMENT: DEPARTMENT OF B.VOC

NAME OF COURSE: PYTHON PROGRAMMING

COURSE CODE: CPCC08

TOTAL HOURS: 65

UNIT-I INTRODUCTION, LANGUAGE, STATEMENTS AND PROGRAMMING CONCEPTS

- (i) Introduction to Python. Variables Expressions and Statements.
- ii) Operators & Operands, Order of Precedence, String Operations.
- iii) Boolean Expressions, Recursion, Encapsulation and generalization.
- iv) Meaning of meditation and its types and principles. Regular expression and pattern matching.

UNIT- II FUNCTIONS

- i) Calling functions, Type conversion and coercion.
- ii) Composition of functions, mathematical functions, User defined functions.
- iii) Parameters and arguments, Anonymous functions - Lambda

UNIT -III MULTITHREADING DATA STRUCTURES

- i) Strings and lists
- ii) Set.
- iii) Tuples and dictionaries.

UNIT -IV OO PARADIGM USING PYTHON

- i) Class, objects, members
- ii) Class attributes vs Instance attributes.
- iii) Data hiding.
- iv) Inheritance.

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UNIT -V API'S

- i) Introduction to API's, API requests.
- ii) Type of requests and status codes.
- iii) End points, Query parameters.
- iv) Working with JSON data
- v) Content type and response headers

UNIT -VI GRAPHICS PROGRAMMING

- i) Introduction to programming vector graphics using Turtle.
- ii) Creating basic drawings.
- iii) Moving Turtles, colors, filling.

UNIT -VII PYTHON – GUI PROGRAMMING (TKINTER)

- i) Tkinter Widgets and standard attributes.
- ii) Geometry management.

UNIT -VIII INTRODUCTION TO DATABASE CONNECTIVITY USING PYTHON

- i) Database handling and connectivity using Python & My SQL database
- ii) Creating tables and manipulating data.
- iii) Basic queries and aggregate functions.
- iv) Filtering, Sorting & Joins