SVKM's Narsee Monjee College of Commerce & Economics

Program: B.Com	**Semester : IV**
Course: Python Programming **Academic Year: 2024-2025 Batch: 2024-2027**	**Code:**

Teaching Scheme				**Evaluation Scheme**	
Lectures	**Practicals**	**Tutorials**	**Credits**	**Internal Continuous Assessment (ICA) (weightage)**	**Term End Examinations (TEE) (weightage)**
15	**30**	**00**	**02**	**20 Marks**	**30 Marks**

Internal Component

Machine Test (Duration 60 Mins)	**Journal**	**Class Participation**
16 Marks	**4 Marks**	**-**

Learning Objectives:

Understand Python's syntax and basic structure.

Learn about different data types such as integers, floats, strings, lists, tuples, dictionaries, etc.

Know how to declare variables and perform basic operations on them.

Master control flow statements like if, else, elif, for, while, etc.

Learn how to use these statements to control the flow of a program.

Learning Outcomes:

Proficiency in Python Syntax and Language Features:

Ability to write Python code using correct syntax and language features.

Understanding of basic data types, variables, operators, and control flow structures.

Problem-Solving Skills:

Capability to solve problems using Python programming constructs.

Proficiency in breaking down problems into smaller, manageable tasks and implementing solutions using Python.

Hands-On Learning:

Emphasize practical, hands-on exercises and projects from the very beginning.

Provide opportunities for students to write and execute Python code in real-time.

Encourage experimentation and exploration to reinforce learning.

Interactive Learning Environment:

Utilize interactive coding environments such as Jupyter Notebooks or online coding platform.

Progressive Complexity:

Start with simple, easy-to-understand concepts and gradually introduce more complex topics.

Break down complex concepts into smaller, manageable chunks and build upon them sequentially.

Detailed Syllabus: (per session plan)
Session Outline for Computer Systems and Applications
Each lecture session would be of one hour duration (60 sessions)

Module	Module Content	Duration
I	**Introduction to python:** why python, structure of python, technical strengths of python, setting up python for different platform, what is idle, writing first program in python, comments, types of error (syntax error, runtime error), create a variable, assignment operator, rules for variables, data types in python (numbers, strings, lists, dictionaries, tuple, files, sets, Booleans, types, none), numeric types **Statements and syntax:** conditional statements: if, if-else, nested if-else looping: for, while, nested loop. control statements: terminating loops, skipping specific conditions Strings: string sequence, traversal with a for loop, sting slices, strings are immutable, searching, looping and counting, string methods, operator, string comparison, string operation	8
II	**Lists:** values and accessing elements, lists are mutable, traversing a list, deleting elements from list, built in operators, concatenation, repetition, in operator, built-in list functions and methods **Tuples and dictionaries:** tuples, accessing values in tuples, tuple assignment, tuple as return values, variable-length argument tuples, basic tuples operations, concatenation, repetition, iteration, creating dictionary, accessing values in a dictionary, properties of dictionary, deletion, properties, operation **Files:** text files, the file object attributes, directories.	7

Details of Internal Continuous Assessment (ICA)

Machine Test Marks: 16
Journal: 04
Machine Test is 1 Hour test carrying 2 compulsory question from unit 1 and 2.
Journal contains the programs carried out throughout the semester.

Term End Examination Question Paper Pattern
Total Marks: 30
Q1 Answer any **two** out of the following Three questions (based on unit1) 7.5*2=15
Q2 Answer any **two** out of the following Three questions (based on unit 2)7.5*2=15

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