

INSTITUTE OF ADVANCED RESEARCH The University for Innovation

Established under the Gujarat Private Universities Amendment Act 2011 and recognized under section 22 and 2(f) of UGC

DEPARTMENT OF COMPUTER SCIENCES & ENGINEERING

PYTHON PROGRAMMING (CE314/CE343)

ASSIGNMENT

Unit-1 to 4

- 1. Define the term "computer" and explain its significance in modern society.
- 2. Explore various uses of computers across different fields and industries.
- 3. Define CPU (Central Processing Unit) and elaborate on its functions.
- 4. Explain the concept of memory hierarchy and its significance in computer architecture.
- 5. Discuss debugging in programming, highlighting common debugging techniques.
- 6. Identify and explain various types of errors encountered in programming.
- 7. Elaborate on Algorithms and flowchart. Also, discuss their role in programming.
- 8. Describe the concepts of Structured programming and its importance.
- 9. Discuss Programming methodologies such as top-down and bottom-up programming and compare their advantages.

Unit-5

- 1. Explain the Structure of a Python Program.
- 2. Introduce Python and its significance in the programming world.
- 3. Explain the functionality of a Python Interpreter.

Unit-6

- 1. Explain the precedence of arithmetic operators in Python with suitable examples.
- 2. Describe the significance of Python's indentation in code structure.
- 3. How does the Python shell facilitate code execution and experimentation?
- 4. Discuss the concept of strings in Python, highlighting their characteristics and operations.
- 5. List various categories of operators in Python. Provide examples illustrating the usage and functionality of any one operator category.

Unit-7

- 1. Explain different methods for accepting user input in Python.
- 2. Discuss various output formatting techniques in Python.
- 3. Highlight the differences among break, continue, and pass statements in Python.



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Unit-8

- 1. Explain the characteristics and provide scenarios where different data structure of python would be most appropriate for usage.
- 2. Discuss the usage of date and time functionalities in Python.
- 3. Explain the concept of modules and their significance in Python programming.
- 4. Detail the process of defining functions in Python, highlighting their advantages.
- 5. Discuss the purpose and usage of the exit function in Python.

Unit-9

- 1. Define objects and classes in Python and discuss their relationship.
- 2. Provide examples demonstrating single and multiple inheritances in Python.
- 3. Discuss the importance of regular expressions in Python and provide examples.
- 4. Explain event-driven programming and its relevance in Python.
- 5. Describe the basics of GUI programming in Python and its libraries.