

# PYTHON

①

## MODULE - 1

- 1] - Entering expressions into interactive shell.
- 2] - Features of python.
- 3] - Data types in python
- 4] - Flow control statements
  - if
  - else
  - elif
  - while
  - break
  - continue
  - for
- 5] - Comparison & Boolean operator
- 6] - Functions Definition & example.
- 7] - Local and Global scope
- 8] - User-defined functions
- 9] - Exception Handling.

## MODULE - 2

- 1] - Lists
  - slicing and indexing
  - supported methods
  - List as a data type
  - Assignment operators
- 2] - Dictionaries
  - Difference b/w list & dictionary
  - Dictionary methods
  - nested dictionary
- 3] - strings
  - methods
- 4] - ~~Project~~ Project
  - Password Locker
  - Adding Bullets to Wiki Markup.

## MODULE - 3

(2)

- 1] - Regular expressions and steps to use regular expressions.
- 2] - Character classes.
- 3] - Pattern matching using Regular expressions.
- 4] - Character & dollar sign characters.
- 5] - Reading & writing Files
  - Properties of file.
  - Read / write process.
  - ~~methods of file ops~~
  - OS path module.
- 6] - Organizing Files
  - The shutil Module.
  - compressing Files with zipfile module.
- 7] - Debugging
  - Raising Exceptions.
  - Assertions.
- 8] - Projects
  - Phone Number & Email address extractor.
  - Generating Random Quiz Files.
  - Multitabboard.
  - Renaming files with American <sup>dates</sup> style to European-style Dates.
  - Backing up a folder into ZIP file.

MODULE-4

- 1] - Classes and objects
  - Definition & initialization of class
  - Accessing class members
- 2] - Classes & functions
  - These functions
  - Modifiers
- 3] - Classes & methods
  - init & \_\_str\_\_ method
  - Polymorphism
  - Type based dispatch
  - Operator overloading
- 4] - Inheritance concept
- 5] - Class diagram

MODULE-5

- 1] - Web scraping
  - Download files from web
  - Parsing HTML with BeautifulSoup module
  - Download and save files to Hard drive
  - Selenium module
- 2] - Working with Excel spreadsheet
- 3] - Working with PDF document
  - Creation
  - Encryption
  - Decryption
  - Copying
- 4] - Working with CSV files & JSON data

5] - For all programs, refer the projects mentioned in syllabus copy for every module.