



CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

18AI52

Fifth Semester B.E. Degree Examination, June/July 2023

Python Programming

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What are operators? Demonstrate the usage of Mixing Boolean and Comparison operators. (05 Marks)
- b. Explain String concatenation and Replication with an example. (05 Marks)
- c. What are Local variables and Global variables? Write a Python program to demonstrate working of local and Global Scope variable. (10 Marks)

OR

- 2 a. What are Functions? Write a Python program to define a function that computes Area of a Triangle and give output (Read input values from user). (05 Marks)
- b. Explain and demonstrate an example of Importing module. (05 Marks)
- c. Define flow control statements. Explain two different flow control statements with example and flowchart. (10 Marks)

Module-2

- 3 a. Define a List datatype. Write a Python program to demonstrate slicing and sorting on a list. (05 Marks)
- b. Write a note on Mutable and Immutable datatypes. (05 Marks)
- c. How dictionaries are different from lists? Write a Python program to demonstrate the same using key(), values() and items() methods. (10 Marks)

OR

- 4 a. Write a detailed note on Tuples and give an example. (05 Marks)
- b. Define 'Manipulating Strings'. Explain any three useful string methods, with respect to manipulating strings, with example. (05 Marks)
- c. Develop a Python program to implement a Password Locker. (10 Marks)

Module-3

- 5 a. What is Pattern Matching? Write a Python program to demonstrate finding patterns of Text with Regular Expressions. (10 Marks)
- b. Explain the File Reading and Writing process, in detail. (10 Marks)

OR

- 6 a. What are Regular Expressions? Write a Python program to demonstrate a project for Phone Number and Email Address Extractor. (12 Marks)
- b. Describe question mark, star, plus and dot Regex symbols of regular expressions, with suitable Python code snippet. (08 Marks)

Module-4

- 7 a. Write a detailed note on Programmer - defined types. Explain "Objects are mutable", using an object diagram. (10 Marks)
- b. What are Pure Functions? Develop a python program to demonstrate pure functions and modifiers. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

OR

- 8 a. Write a detailed note on concepts of Operator Overloading and Polymorphism, in Python. (10 Marks)
- b. What are Object-Oriented features? Develop a Python program to demonstrate syntactical differences between Methods and Functions. (10 Marks)

Module-5

- 9 a. Define Web Scraping. Explain parsing HTML with the BeautifulSoup module in detail. (10 Marks)
- b. Develop a code snippet in python to demonstrate saving Downloaded files to the Hard Drive. (10 Marks)

OR

- 10 a. What are the advantages of CSV files? Explain the Readers objects and Writer objects. (10 Marks)
- b. Develop a Python program to get a list of all files with the pdf extension in the current working directory and sort them. (10 Marks)
