Reg. No.

BCACACN 401

Fourth Semester B.C.A. Degree Examination, June/July 2024
(NEP 2020) (2022-23 Batch Onwards)
PYTHON PROGRAMMING

Time : 2 Hours

Max. Marks : 60

Note : *Answer **any six** questions from Part – **A** and **one full** question from **each** Unit in Part – **B**.*

PART – A

(6×2=12)

1. a) What is Python Virtual Machine ?

   b) What is Keyword argument ? Give example.

   c) Why strings are called immutable ?

   d) What is tuple ? Give example.

   e) How to define private instance variable and methods in Python ?

   f) What is Canvas ? How it is created in Python ?

   g) What is Pandas series ? Give example.

   h) What is matplotlib and pyplot ?

PART – B

Unit – I

2. a) Explain any four flavors of Python.

   b) With example explain how command line arguments are passed to python program.

   c) Explain exception handling in Python. (4+4+4)

3. a) Explain various data types in Python.

   b) Give the syntax of range function. Explain with example.

   c) With syntax and example explain how to define and call a function in Python. (4+4+4)

Unit – II

4. a) Explain concatenation, repetition and membership operations on string.

   b) With example explain how to Access and Modify *key : value* Pairs in Dictionaries.

   c) Explain any four list methods with syntax.

   (4+4+4)

5. a) Explain split and join methods of string with example.

   b) Write a note on indexing and slicing operations on tuples.

   c) Explain any four set methods.

   (4+4+4)

Unit – III

6. a) What is inheritance ? How to implement inheritance in Python ? Give an example.

   b) Write a note on arranging Widgets in a frame using layout managers with examples.

   (6+6)

7. a) Explain declaring a class, defining an object and constructor with syntax and example.

   b) How to create a button widget and bind it to the event handler ? Explain with example.

   (6+6)

Unit – IV

8. a) Explain any four NumPy array creation functions with example.

   b) Explain Bar Graph creation using Matplot Library module.

   (6+6)

9. a) Explain any four SQLite database operations with example.

   b) Explain any four operations on Dataframe with example.

   (6+6)