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BCACAC 335

# Choice Based Credit System Fifth Semester B.C.A. Degree Examination, April/May 2022 (2021-22 Batch Onwards) PYTHON PROGRAMMING (Group – I)

Time: 3 Hours

Max. Marks: 80

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

PART - A

 $(10 \times 2 = 20)$ 

- 1. a) How to write a comment line in Python? Mention two types.
  - b) List any four differences between Java and Python.
  - c) Differentiate set and frozenset.
  - d) How to compare and concatenate two strings in Python ? Give one example for each.
  - e) List 4 types of actual arguments used in Python function calls.
  - f) What is a tuple? Give example.
  - g) What is an accessor method? Give example.
  - h) What is an exception? List any two built-in exceptions in Python.
  - i) What is the daemon thread?
  - j) What is a root window? How it is created in Python?
  - k) Write a Python code to download an image from the internet.
  - How to connect MySQL database from Python.

PART - B

Unit -

- 2. a) Explain any five features of Python.
  - Explain the various sequence data types in Python with Syntax and example.
  - c) Explain the Arithmetic operators and membership operators available in Python with example. (5+5+5)

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- a) Explain any three functions used to create an Array using the numpy package.
  - b) Explain the concept of Python Virtual Machine.
  - c) Explain passing command-line arguments with a program example. (6+5+4)

### Unit - II

- 4. a) What is string slicing? Explain different ways of slicing string with example.
  - b) With an example explain returning multiple values from a function.
  - c) Explain any five methods to process the list with suitable example. (5+5+5)
- 5. a) Explain use of filter(), reduce() methods with suitable examples.
  - b) Explain different types of actual arguments used in the function call with examples.
  - c) Explain any five methods to process elements of the dictionary with example. (5+5+5)

### Unit - III

- a) What is a class? How to create a class and object in Python? Give example.
  - b) What is inheritance? How to implement inheritance in Python? Give an example.
  - c) Explain exception handling in Python with an example. (5+5+5)
- 7. a) Explain class and static methods with suitable example.
  - b) Explain findall() and search() methods used in regular expression with example.
  - c) Explain creating a thread by creating a subclass to the Thread class.

    Give an example. (5+5+5)

## Unit - IV

- 8. a) Write a note on arranging Widgets in a frame using layout managers.
  - b) Explain the functions related to TCP/IP server and TCP/IP Client.
  - c) Explain how to connect to the MySQL database and retrieve all the rows from a table with an example. (5+5+5)
- a) How to create a button widget and bind it to the event handler? Explain with example.
  - b) Explain the steps to create file server that receives file name and sends a file's contents.
  - c) Explain how records are inserted and deleted from the MySQL database with an example. (5+5+5)