Bachelor of Computer Application (B.C.A.)

3rd Semester (Batch 2023-26) (CBGS)

INTRODUCTION TO PYTHON PROGRAMMING

Paper—BCA03003T

Time Allowed—3 Hours] [Maximum Marks—100

Note :—Attempt **FIVE** questions in all, selecting at least **ONE** question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. (a) What are the technical strengths of Python language ? Explain.

   (b) Define variables and identifiers used by Python.

2. (a) What is the use of lists in Python ? Explain.

   (b) Explain the usage of selection control by writing Python program.

SECTION—B

3. (a) Write a Python program to find the smallest of three numbers using if-else control structure.

   (b) Write a program to find factorial of a number illustrating recursion.

4. (a) Discuss the role of packages.

   (b) Explain the concept of Python modules.

SECTION—C

5. (a) Write a Python program to read text from a text-file.

   (b) Differentiate readline() and readlines() functions.

6. (a) Write a Python code to find area of a square by using features of object oriented programming.

   (b) What is the significance of inheritance ? Explain.

SECTION—D

7. How SQL database connection is carried out using Python ? Explain.

8. Explain the following concepts by taking suitable examples :

   (a) Programming with multiple tables.

   (b) Data modelling.