Fourth Semester BCA Degree Examinations

May /June 2026

(SEP Scheme)

SBD0210 : Python Programming

Time: 3 hrs:] *[Max.Marks:80*

Instruction to the Candidates :

1. *The student should legibly write Section number along with question numbers within the margin only.*
2. *The answers without Section number and question numbers will not be valued.*
3. *Do not write anything (except register number) on the question paper.*

SECTION – A

I. Answer all the questions. **(2X10=20)**

1.

a) Explain any two advantages of Python over other programming languages.

b) What is the role of Python libraries ? Explain the purpose of Pandas briefly.

c) Explain string slicing and state its importance in Python.

d) Differentiate between while loop and for loop in Python.

e) What is a nested list ? Explain with a suitable example.

f) Compare lists and tuples based on mutability and usage.

g) Write python code to divide an array into two sub arrays with equal number of elements.

h) Explain the relationship between class and object in Object Oriented Programming.

i) What is the purpose of the finally block in exception handling ?

j) Name any two mutable classes in python.

SECTION – B

II. Answer any SIX of the following questions. **(5X6=30)**

2. Explain identifiers in Python and list the rules for its naming and give examples.

3. Explain the following Python libraries and their applications.
a) numpy b) pandas c) matplotlib

4. Explain the following string operations in Python with example program.
a) concatenation b) comparison

Contd...2

5. Explain the role of following keywords in python control statements. Give examples.

   a) break b) continue c) pass

6. Explain list operations in Python and discuss commonly used built in functions on lists.

7. Explain sets in Python. Discuss their properties and operations in brief.

8. Explain the concept of constructor method in Python classes and describe how objects are initialized.

9. Explain file handling in Python and discuss the operations of creating , opening, reading and closing files.

SECTION – C

III. Answer any THREE of the following questions. **(10X3=30)**

10. a) Explain complex data type with suitable example and operations on complex data type.

    b) What is type conversion in Python? Explain its types. **(5+5)**

11. Explain the concept of functions in Python and describe the syntax of function definition and function calling with different types of parameters. Give examples. **(10)**

12. a) Discuss dictionaries in Python and describe different operations on dictionaries

    b) What is a tuple ? Discuss its built – in methods (any four). **(5+5)**

13. a) Explain the concept of classes with multiple objects and discuss objects as arguments and return types.

    b) Explain exception handling in Python with suitable example. **(5+5)**

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