



K25U 0959

Reg. No. :

Name :

**IV Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/
Supplementary/Improvement) Examination, April 2025
(2020 to 2023 Admissions)**

**COMPLEMENTARY ELECTIVE COURSE FOR B.SC. LIFE SCIENCES
(ZOOLOGY) AND COMPUTATIONAL BIOLOGY
4C04 CSC-ZCB : Computation using Python**

Time : 3 Hours

Max. Marks : 32

**PART – A
(Short Answer)**

Answer **all** questions.

(5×1=5)

1. What is the purpose of comments in Python ?
2. Name any two numerical data types in Python.
3. Identify the default return type of input() in Python.
4. What is the function of random() in NumPy ?
5. Identify the function used to plot a scatter plot in Matplotlib.

**PART – B
(Short Essay)**

Answer **any 4** questions.

(4×2=8)

6. Differentiate between break and continue statements with examples.
7. Explain the significance of the for loop in Python with an example.
8. What is the use of the try and except blocks in Python ?
9. Explain the concept of recursion in Python.
10. Differentiate between data hiding and encapsulation.
11. Differentiate between reshape() and resize() in NumPy.

P.T.O.



PART – C
(Essay)

Answer **any 3** questions.

(3×3=9)

12. Demonstrate the use of sets and any two built-in methods of sets in Python.
13. Illustrate how to create and import a module in Python.
14. Explain built-in exceptions in Python with examples.
15. Explain how to create a class and an object in Python with an example.
16. Explain how to create and display a simple line plot using Matplotlib.

PART – D
(Long Essay)

Answer **any 2** questions.

(2×5=10)

17. Discuss different types of operators in Python with suitable examples.
18. Describe file handling operations in Python with examples for opening, reading and writing files.
19. Describe different types of inheritance in Python with examples.
20. Describe the different ways to create NumPy arrays with examples.