

25U270

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Name :

Reg. No :

SECOND SEMESTER UG DEGREE EXAMINATION, APRIL 2026

(FYUGP)

(Regular/Supplementary/Improvement)

CC24UCSC2CJ102 - FUNDAMENTALS OF PYTHON PROGRAMMING

(Computer Science - Major Course)

(2024 Admission onwards)

Time: 2.0 Hours

Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 3 marks.

1. Define break, continue, and pass statements with examples. [Level:2] [CO1]
2. Explain the role of Operators in Python. Give an example of an arithmetic operator. [Level:2] [CO1]
3. What is the lifetime of a variable in Python? Explain with an example. [Level:2] [CO2]
4. Explain the difference between a module and a package in Python. [Level:2] [CO2]
5. How do you create a Pandas Series from an array? Provide an example. [Level:3] [CO4]
6. Name and explain any four list methods with examples. [Level:3] [CO3]
7. Explain tuple traversal with an example. [Level:3] [CO3]
8. What is the use of explicit indexing in Pandas Series? Provide an example. [Level:3] [CO4]
9. How do you create a NumPy array? Provide an example. [Level:3] [CO4]
10. What is the difference between slicing and fancy indexing in NumPy? [Level:3] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer *all* questions. Each question carries 6 marks.

11. What are decision-making structures in Python? Explain if, if-else, and nested if-else with examples. [Level:2] [CO1]
12. What is type conversion in Python? Differentiate between implicit and explicit type conversion with examples. [Level:2] [CO1]
13. Explain the importance of using functions in Python programming. [Level:2] [CO2]

14. Differentiate between single-line and multi-line comments in Python. Provide examples [Level:2] [CO1]
15. What is recursion in Python? Write a recursive function to compute the Fibonacci series. [Level:2] [CO2]
16. What are default arguments in Python? Provide an example. [Level:2] [CO2]
17. Write a Python program to remove duplicate elements from a list using a set. [Level:3] [CO3]
18. What is a dictionary in Python? How is it different from other data structures? [Level:3] [CO3]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

19. What are the different looping structures in Python? Compare for loops with while loops. Provide examples demonstrating when to use each. [Level:2] [CO1]
20. Discuss the concept of string joining and splitting in Python. Provide examples to illustrate how strings can be joined and split using the .join() and .split() methods. [Level:3] [CO3]

(1 × 10 = 10 Marks)
