

**2024/FYUG/EVEN/SEM/  
CASEC-151T/138**

**FYUG Even Semester Exam., 2024**

**COMPUTER APPLICATION**

**( 2nd Semester )**

**Course No. : CASEC-151T**

**( Python Programming )**

**Full Marks : 50**

**Pass Marks : 20**

**Time : 2 hours**

**The figures in the margin indicate full marks  
for the questions**

**SECTION—A**

**Answer any fifteen questions :**

**1×15=15**

1. What is Python?
2. Define l-value.
3. How boolean variable is defined?
4. What is sequence data type?

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5. What is the use of indentation?
6. What is string in Python?
7. What is control flow statement in Python?
8. What is 'pass' statement?
9. Define list.
10. What is 'tuple'?
11. What is set?
12. Why dictionary is used?
13. Why 'def' keyword is used in Python?
14. What is function call?
15. What is Python module?
16. Write down the syntax to add Python package.
17. What do you mean by file handling in Python?
18. What is exception?
19. What is Matplotlib?
20. Write down the purpose of open().

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( Continued )

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SECTION—B

Answer any five questions :

2×5=10

21. Write down the difference between mutable and immutable data types.
22. What are identity operators? Give example.
23. Write down the example of 'if-elif-else' statement.
24. How 'for' loop is used in python?
25. How nested lists are defined? Give example.
26. How to traverse tuple? Give example.
27. What are the different types of function arguments? Give example.
28. Write down the disadvantages of recursion.
29. What are different file opening modes used in Python?
30. Write a small Python code to read a text file.

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( Turn Over )

## SECTION—C

Answer any five questions :

$5 \times 5 = 25$

31. Write a Python script to convert Fahrenheit to Celsius and vice-versa. 5
32. Define with an example :  $2+2+1=5$
- Python expression
  - Type conversion in Python
  - Python as a calculator
33. Write a Python script to find the summation of the following series : 5
- $$S = 1 + x + x^2 + x^3 + \dots + x^n$$
34. Explain different string operations with an example :  $2+2+1=5$
- Slicing
  - concatenation
  - Traversing
35. How to add elements to a Python list?  $2+2+1=5$
- Using append() method
  - Using insert() method
  - Using extend() method

36. Explain different Python set operations like union, intersection, subtraction and symmetric differences. 5
37. Write a Python script to demonstrate the concept of pass by value and pass by reference. 5
38. Write a Python script to calculate factorial of  $n$  using recursion. 5
39. How exceptions are handled in Python? Explain with an example. 5
40. Explain with code :  $2+2+1=5$
- Writing to files in Python.
  - Closing files in Python
  - Opening a Python file using 'with-open'

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