

(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2023-24 ONLY)

SUBJECT CODE **23 UCT 411**
REG.NO.

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS : MAY – 2025
B.Sc. – COMPUTER TECHNOLOGY **MAXIMUM MARKS: 75**
IV SEMESTER **TIME : 3 HOURS**

PART – III
PYTHON PROGRAMMING

SECTION – A **(10 X 1 = 10 MARKS)**

ANSWER THE FOLLOWING QUESTIONS. **(K1)**

1. _____ is used to execute a Python script from the command line.
a) python <script_name.py> b) run <script_name.py>
c) execute <script_name.py> d) python3 <script_name.py>
2. Which of the following logical operators is used for "OR" condition in Python?
a) && b) and c) or d) ||
3. _____ functions is used to get the list of methods and attributes of an object in Python.
a) dir() b) help() c) type() d) str()
4. _____ exception is raised when trying to open a file that does not exist
a) File Not Found Error b) IO Error
c) Value Error d) Index Error
5. Which of the following is the correct way to create a class in Python?
a) class MyClass[: b) def MyClass():
c) class MyClass: d) object MyClass():

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES. **(K2)**

6. How can you check the data type of a variable in Python?
7. What does the break statement do in Python?
8. Mention the purpose of lamda function in Python.
9. What is the purpose of the finally block in exception handling?
10. Define the term Inheritance.

SECTION – B **(5 X 5 = 25 MARKS)**

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. **(K3)**

11. a) Write the procedure to declare and initialize the variable in Python with an example.
(OR)
b) Explain the Python basic syntax and comments with an example.

(CONTD 2)

12. a) Illustrate While loop and for loop in Python with an example.
(OR)
- b) Write a program to create, append, and remove lists in python
13. a) Define a function in Python and explain how parameters are passed to a function.
(OR)
- b) Explain the scope of a variable in Python with an example.
14. a) Point out the Exception Hierarchy in Python.
(OR)
- b) Write a program that inputs a text file. The program should print all of the unique words in the file in alphabetical order.
15. a) Determine the special methods in Python, and how are they used?
(OR)
- b) Compare class variables with instance variables in Python. Give an example.

SECTION – C**(5 X 8 = 40 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING****QUESTIONS.****(K4 (Or) K5)**

16. a) Write the following i) How to edit the python files ii) Reserved Keywords in Python.
(OR)
- b) Write a program to create, concatenate and print a string and accessing sub-string from a given string.
17. a) Categories the various operators supported by Python with an example.
(OR)
- b) Write a program to demonstrate working with tuples in python.
18. a) Explain how functions can be passed as arguments to other functions in Python. Provide an example.
(OR)
- b) Write a Python program that measures the time taken to execute a specific block of code using the time module.
19. a) Illustrate the concept of exception handling in Python with a simple example.
(OR)
- b) Write a Python program that handles multiple exceptions, performs file reading and writing, and ensures file closure using finally.
20. a) Explain the core principles of Object-Oriented Programming (OOP) and how they are implemented in Python.
(OR)
- b) Discuss the role of polymorphism in Python and demonstrate how it works in practice with an example that involves method overriding.
