

JANUARY 2026

107/2020

SCRIPTING LANGUAGES (PYTHON)

Time Allowed: 2.5 Hours

Full Marks: 60

Answer to Question No. 1 of Group A must be written in the main answer script. In Question No. 1, out of 2 marks for each MCQ, 1 marks is allotted for right answer and 1 marks is allotted for correct explanation of the answer.

Answer any Five (05) Questions from Group-B.

GROUP-A

- i. Choose the correct answer from the given alternatives and explain your answer (any ten): 2x10=20

.i) Python was created by:
 a) Dennis Ritchie
 b) Guido van Rossum
 c) James Gosling
 d) Bjarne Stroustrup

.ii) Which of the following is a feature of Python?
 a) Compiled language
 b) Low-level language
 c) Interpreted and high-level
 d) Requires manual memory management

.iii) What is the output of type(3+4j) in Python?
 a) int
 b) float
 c) complex
 d) imaginary

.iv) Which operator is used for string concatenation in Python?
 a) *
 b) +
 c) &
 d) %

.v) Which of the following is a mutable data type?
 a) tuple
 b) list
 c) string
 d) int

i. vi) What will be the result of 5 // 2?
 a) 2.5
 b) 3
 c) 2
 d) 2.0

vii) Which operator has the highest precedence in Python?
 a) Addition +
 b) Multiplication *
 c) Exponentiation **
 d) Division /

.viii) Which keyword is used for conditional branching?
 a) if
 b) for
 c) loop
 d) switch

.ix) What is the output of:
 for i in range(3):
 print(i, end=" ")
 a) 1 2 3
 b) 0 1 2
 c) 0 1 2 3
 d) Error

.x) Which statement exits the loop entirely?
 a) continue
 b) break
 c) exit
 d) pass

.xi) Which keyword is used to import a module in Python?
 a) include
 b) using
 c) import
 d) module

.xii) A package in Python is essentially:
 a) A single function
 b) A collection of modules in a directory
 c) A type of variable
 d) An operator

.xiii) What mode is used to open a file for writing?
 a) r
 b) w
 c) a
 d) x

xiv) Django is based on which design pattern?
a) MVC b) OOP c) POP d) AI

xv) What is the purpose of Django templates?
a) Database management b) URL handling
c) Rendering HTML pages dynamically d) Creating models

GROUP-B
Answer any Five (05) questions.

2. a) Discuss the various built-in data types provided by the Python programming language.
b) Why is Indentation Important in Python? [5+3]

3. a) How do you represent a string in Python?
b) Write a Python program to check whether a given string is a palindrome or not. [3+5]

4. a) Differentiate between lists, tuples, and dictionaries with examples.
b) Explain the difference between list slicing and list indexing. [5+3]

5. a) What is a loop, and why is it essential in programming?
b) Explain the use of break and continue statements with examples. [4+4]

6. a) Describe logical and identity operators in Python with suitable examples.
b) Write the output of the following code snippet. [2+6]

```
a, b = 5, 3
print(a & b)
print(a | b)
print(a ^ b)
print(~a)
print(a << 1)
print(a >> 1)
```

7. a) What is the difference between a user-defined function and a built-in function?
b) What is a lambda function? Why is it used? [3+5]

8. a) What is the purpose of Python packages?
b) Differentiate between modules and packages with a suitable example. [2+6]

9. a) Explain the different file read and write functions with examples.
b) What is a lambda function? Why is it used? [4+4]

10. a) Explain the working of regular expressions in Python with examples.
b) Explain Django MVC/MTV architecture. [4+4]