



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Tech.(CSE)-DS-2021/B.Tech.(CSE)-DS-2022/B.Tech.(CSE)-DS-2023

Course Name – Introduction to Python Programming

Course Code - ESCD303

(Semester III)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) Select the correct option among the following that is a valid variable name in Python:

- a) 2names
- b) myVar
- c) global
- d) lambda

(ii) Identify the option that is NOT a valid Python variable naming convention:

- a) my_variable
- b) MyVariable
- c) MY_VARIABLE
- d) my Variable

(iii) Identify the correct way to concatenate two strings in Python:

- a) str1 + str2
- b) str1 . str2
- c) str1 : str2
- d) str1 & str2

(iv) Select the purpose of the "in" operator in Python

- a) To check if a value is present in a list, tuple, or string.
- b) To check if two variables refer to the same object.
- c) To check if a variable is within a specific range.
- d) To check if a variable is initialized or not.

(v) Identify the output of the following Python code x = 10; if x > 5: if x < 15: print("x is between 5 and 15")

- a) x is between 5 and 15
- b) x is greater
- c) x is less than 15
- d) x > 5

(vi) Identify the purpose of the "pass" statement

- a) It halts the execution of the loop.
- b) It is used as a placeholder when no action is required in a loop or function.
- c) It generates a syntax error.
- d) It creates a custom loop control statement.

(vii) Identify the output of the following Python code: x = "Python is fun!" print(x[7:9])

- a) is
- b) fun
- c) si
- d) in

(viii) Identify the operators that can be used to compare two values for equality in Python

- a) =
b) ==
c) ===
d) <=>

(ix) Identify the purpose of the "not" operator in Python

a) To perform bitwise NOT operation on integers.
b) To reverse the logical value of a Boolean expression.
c) To check if a variable is not assigned any value.
d) To raise a value to the power of another value.

(x) Identify the method that is used to add an element to a set in Python

a) add()
b) insert()
c) append()
d) update()

(xi) Identify the python loop that is ideal for iterating over a sequence (e.g., a list or string)

a) For loop
b) While loop
c) Nested loop
d) If-else loop

(xii) Identify output of the following Python code from the options given: len("Python")

a) 7
b) 6
c) 5
d) "Python"

(xiii) Chose the output of the following Python code

```
def greet(name):  
    print("Hello, {name}!")  
greet("John")
```

a) Hello, John!
b) greet("John")
c) "Hello, John!"
d) "Hello, name!"

(xiv) Choose the output of the following Python code

```
my_list = [1, 2, 3]  
my_list.pop(1)  
print(my_list)
```

a) [1, 2, 3]
b) [1, 3]
c) [1, 2]
d) [2, 3]

(xv) Chose the option to import a module named "math".

a) import math
b) import module math
c) import Math
d) use math

Group-B

(Short Answer Type Questions)

$$3 \times 5 = 15$$

2. Describe the different numeric data types in Python. (3)
3. Explain the steps to print a value in Python. (3)
4. Discuss the guidelines for naming variables in Python. (3)
5. Write the definition of a dictionary in Python. (3)
6. Evaluate the role of the finally block in exception handling in Python. (3)

OR

Evaluate a Python program to instantiate an object of a class. (3)

Group-C

(Long Answer Type Questions)

$$5 \times 6 = 30$$

7. Illustrate the steps to generate a random number in Python (5)
8. Write the usage of multiple except blocks for exception handling in Python. (5)
9. Enumerate the differences and similarities between local and global variables in Python. (5)
10. Describe the string indexing mechanism in Python. (5)
11. Write a Python script to concatenate the following dictionaries to create a new one. (5)
Sample Dictionary : dic1={1:10, 2:20} dic2={3:30, 4:40} dic3={5:50,6:60}
12. Recommend a Python program that reverses a given string. (5)

OR

OR

Demonstrate a Python function that counts the occurrence of a substring in a string. (5)