



BRAINWARE UNIVERSITY

Library
Brainware University
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Term End Examination 2024-2025

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

Course Name – Introduction to Python Programming

Course Code - ESCM303

(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 purpose of the following Python statement `do x, y = 5, 10`
- a) Creates two variables, x and y, with values 5 and 10, respectively.
 - b) Compares the values of x and y and returns True if they are equal.
 - c) Adds the values of x and y and stores the result in a new variable.
 - d) Raises a syntax error because of the comma.
- (ii) Identify the option that is a valid Python triple-quoted string
- a) Hello World
 - b) "Hello World"
 - c) """"Hello World""""
 - d) '''Hello World
- (iii) Identify the option that is NOT a valid Python data type
- a) list
 - b) dictionary
 - c) tuple
 - d) struct
- (iv) Select the output of the following Python code `for i in range(3): <p style="margin-left: 40px;">for j in range(2): <p style="margin-left: 80px;">print(i, j)`
- a) `<div>0 0</div> <div>0 1</div> <div>1 0</div> <div>1 1</div> <div>2 0</div> <div>2 1</div>`
 - b) `<div>0 0 1</div> <div>1 0 1</div> <div>2 0 1</div>`
 - c) `<div>0 0 1 2</div> <div>1 0 1 2</div>`
 - d) `<div>0 1 2</div> <div>0 1 2</div>`
- (v) Select the correct way to comment a single-line in Python
- a) `//`
 - b) `/* */`
 - c) `#`
 - d) `--`
- (vi) Identify the function that can be used to get the user's input from the command line in Python
- a) `get()`
 - b) `read()`
 - c) `input()`
 - d) `user_input()`
- (vii) Identify the result of the following expression in Python `10 // 3`

- a) 3.333333
c) 3.33
- (viii) Identify the option to concatenate two or more strings in Python
a) By using the + operator
b) By using the & operator
c) By using the concat() method
d) By using the append() method
- (ix) Select the output of the following Python code `def func(a, b=10, c=20): <p style="margin-left: 40px;">return a+b+c print(func(5, 2))`
a) 37
b) 15
c) 37 10
d) 37 20
- (x) Identify the output of the following Python code `<div>num = 10</div> <div>def add():</div> <div style="margin-left: 40px;">global num</div> <div style="margin-left: 40px;">num = num+5</div> <div> </div> <div>add()</div> <div>print(num)</div>`
a) 10
b) 15
c) 5
d) Error
- (xi) Select the output of the following Python code `my_dict = {"name": "John", "age": 25} my_dict["gender"] = "Male" print(my_dict)`
a) {"name": "John", "age": 25}
b) {"name": "John", "age": 25, "gender": "Male"}
c) {"gender": "Male", "name": "John", "age": 25}
d) {"gender": "Male"}
- (xii) Identify the output of the following Python code `my_list = [1, 2, 3] my_list.clear() print(my_list)`
a) []
b) [1, 2, 3]
c) [None]
d) [0, 0, 0]
- (xiii) Identify the output of the following Python code `my_list = [1, 2, 3] print(my_list * 2)`
a) [1, 2, 3, 1, 2, 3]
b) [2, 4, 6]
c) [1, 4, 9]
d) [1, 2, 3, 2, 4, 6]
- (xiv) Identify the output of the following Python code `my_dict = {"name": "John", "age": 25} my_dict.pop("name") print(my_dict)`
a) {"name": "John"}
b) {"name": "John", "age": 25}
c) {'age': 25}
d) Error
- (xv) Predict the output of the following Python code
`m = [2, 3, 4, 5, 6]
del m[2:4]
print(m)`
a) [2, 3, 6]
b) [2,3,5,6]
c) [4,5,6]
d) []

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain string concatenation to combine two strings in Python. (3)
3. Describe the significance of indentation in Python. (3)
4. Write a Python program to retrieve elements from a tuple using their index in Python. (3)

5. Explain the purpose of the keys() method with dictionaries. (3)

6. Explain the use of the init() method as a constructor in Python classes. (3)

OR

Explain the attributes and methods of an object in Python.

(3)

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Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain mutability and immutability in python with example. (5)

8. Develop a Python function that removes duplicate elements from a list. (5)

9. Describe different data types in Python variables. (5)

10. Explain the approach of implementing nested if-else statements in Python. (5)

11. Write a program in python to combine each line from the first file with the corresponding line in the second file. (5)

12. Recommend a Python function that counts the occurrences of a substring in a string. (5)

OR

Recommend a Python function to determine if a string is a palindrome.

(5)
