

KATHMANDU UNIVERSITY
End Semester Examination
September 2024

Marks Scored:

Level : B.Sc/B.Tech.

Year : I

Exam Roll No. :

Time: 30 mins.

Registration No.:

Course : COMP 117

Semester : II

F. M. : 10

Date : 09 SEP 2024

SECTION "A"

[20Q. × 0.5 = 10 marks]

Choose and encircle the most appropriate answer. Symbols have their usual meanings.

1. What is the maximum length of a Python identifier?
a. 8
b. 16
c. 32
d. No fixed length is specified
2. Which of the following is the **CORRECT** extension of the Python file?
a. .pth
b. .py
c. .python
d. .pl
3. Which character is used in Python to make a single line comment?
a. /
b. //
c. #
d. !
4. What is a variable in Python?
a. A container to store data
b. a loop to iterate through data
c. a conditional statement for decision making
d. a function to perform mathematical operation
5. What is the correct way to create an integer variable named "x" with value 1 in Python language?
a. int x= 1
b. x= 1
c. x= =1
d. 1=x
6. Which of the following is the correct output of the program
a="hello "
b='World'
c=b+a
print(c)
a. helloWorld
b. Worldhello
c. World hello
d. hello World
7. What is the output of the given code?
s = 'thinktank'
print(s[2:5])
a. in
b. ink
c. nkt
d. inkt
8. What does the replace() method do in Python string manipulation?
a. Replaces the first occurrences of substring with another substring
b. Inserts a substring into the string at a specified position
c. Deletes all occurrences of substring from the string
d. Replaces all occurrences of a substring with another substring
9. Which is the **CORRECT** output for the following code?
a=26%7
print(a)
a. 5
b. 6
c. 7
d. 4

19. _____ library is required for working with data sets.
a. Pandas b. Numpy c. Matplotlib d. SciPy
20. _____ provides algorithms for optimization, integration, interpolation, algebraic equations, differential equations, statistics and many other classes of problems.
a. Pandas b. Numpy c. Matplotlib d. SciPy

KATHMANDU UNIVERSITY
End Semester Examination
September 2024

Level : B.Sc/B.Tech.
Year : I
Time : 2 hrs. 30 mins.

09 SEP 2024

Course : COMP 117
Semester : II
F. M. : 40

SECTION "B"

[6Q. × 4 = 40 marks]

Attempt *ANY SIX* questions.

1. What is flowchart? Draw a flowchart to count and print from 1 to 10. [1+3]
2. What is variable? Write any four rules for writing variable. [1+3]
3. Explain any five string functions used in python with example.
4. Explain arithmetic operator that are used in Python with suitable code example.
5. Difference between python break and continue statements with example.
6. Define string slicing concept in python with example of negative indexing.
7. Explain NumPy, SciPy and Matplotlib python libraries.

SECTION "C"

[2Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. Illustrate the advantages of using function? Explain different kinds of function arguments. Write a python program to print factorial of a given number. [2+3+3]
9. Differentiate between count controlled and condition controlled loop with suitable example. Write a Python program to display the following pattern. [4+4]

```
*
***
*****
*****
*****
```

10. What are python list, tuple, set and dictionaries? Discuss different operation on them with code example. Also explain their properties in detail. [2+4+2]

