

SOE

KATHMANDU UNIVERSITY  
End Semester Examination  
March, 2025

Marks Scored:
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Level : B.E.

Course : COMP 117

Year : I

Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date 20 MAR 2025

## SECTION "A"

[20Q. × 0.5 = 10 marks]

Choose the most appropriate answer and **mark [X]** the most appropriate option.

- Which of the following is used to represent a decision in a flowchart?  
 Rectangle       Parallelogram       Diamond       Oval
- Which characteristic best describes Python's memory management?  
 Manual memory allocation       Automatic garbage collection  
 Requires explicit memory deallocation       No memory management
- What will `print("Python"[2:5])` output?  
 Pyt       ytho       tho       thon
- What data type does `type(3.14)` return?  
 int       float       str       complex
- What is the result of `10 % 3`?  
 3.33       3       1       0
- Which character is used for line continuation in Python?  
 ;       ,       \       :
- Which operation is not allowed for tuples?  
 Slicing       Indexing       Item assignment       Concatenation
- What happens if you try to access a key that doesn't exist in a dictionary using `.get()`?  
 Raises a `KeyError`       Returns `None`  
 Returns an empty string       Returns 0
- What will be the output of `len({1, 2, 2, 3})`?  
 4       3       2       1
- Which of the following is a valid way to check if a value is in a list?  
 `list.contains(value)`       `value in list`  
 `list.has(value)`       `check(value, list)`
- What is the purpose of the `elif` keyword?  
 To end an if-else statement.       To add more conditions to an if statement.  
 To define a loop.       To handle errors.

12. When does the **else** block of a **try-except** statement execute?  
 Always.  If an exception occurs.  
 If no exception occurs.  If any error occurs.
13. What will be the output of the following code?  

```
for i in range(3):
    print(i)
    if i == 1:
        continue
    print("Done")
```

 0 1 2 Done  0 Done 1 2 Done  
 0 Done 1 Done 2 Done  0 1 Done 2
14. What does the **while** loop condition **while False:** do?  
 Runs indefinitely.  Never executes.  
 Executes once.  Raises an error.
15. What is the purpose of the **continue** keyword in a loop?  
 To exit the loop entirely.  To skip the rest of the current iteration.  
 To terminate the program.  To start the loop from the beginning.
16. How do you import a specific function **my\_function** from a module **my\_module**?  
 import my\_module.my\_function  
 from my\_module import my\_function  
 import function my\_function from my\_module  
 import my\_function from my\_module()
17. What is a local variable's scope?  
 Throughout the entire program.  Within the function where it is defined.  
 Across all modules.  Only within the loop it's declared.
18. What is the purpose of the **\_\_name\_\_ == "\_\_main\_\_"** condition in Python?  
 To define a main function.  To check if the script is being run directly.  
 To import the main module.  To declare global variables.
19. Which NumPy function is used to create an array of zeros?  
 numpy.array()  numpy.linspace()  
 numpy.zeros()  numpy.arange()
20. Which Matplotlib function is used to add labels to the x and y axes?  
 matplotlib.title()  matplotlib.xlabel() and matplotlib.ylabel()  
 matplotlib.legend()  matplotlib.show()