25U157 (Pages: 2) Name : .....

Reg. No : .....

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(FYUGP)

(Regular/Supplementary/Improvement)

CC24UCSC1MN102 - PYTHON PROGRAMMING

(Computer Science - Minor Course)

(2024 Admission onwards)

Time: 2.0 Hours Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 3 marks.

1. Explain the purpose of the import statement in Python. [Level:2] [CO1]
2. Describe the role of indentation in Python code. [Level:2] [CO1, CO2]
3. Explain two different methods to run Python code. [Level:2] [CO1]
4. Provide an example of a while-else loop and explain the conditions required for the loop to keep running, as well as when it will terminate. [Level:3] [CO2]
5. Use the continue statement to modify a loop that processes a list of numbers, so that it skips any negative numbers and only performs operations on non-negative values. [Level:3] [CO2]
6. Provide an example how can you remove a key-value pair from a dictionary. [Level:3] [CO3]
7. Implement a python program that removes all occurrences of a given element from a list([1, 5, 2, 5, 3, 5]). [Level:3] [CO3]
8. Provide an example for union and intersection operations in sets. [Level:3] [CO3]
9. Provide a function find_max that accepts a 2 numbers as an argument and returns the maximum value. [Level:3] [CO4]
10. Determine the process the flow of execution in a Python function from the moment it is called until the return statement is encountered. [Level:3] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer ***all*** questions. Each question carries 6 marks.

11.	Demonstrate how to do tuple slicing using suitable programs?	[Level:3]	[CO3]
12.	Apply the datetime module to get the current date and time in Python. How would you use datetime.now() to display the current timestamp?	[Level:3]	[CO4]
13.	Demonstrate how to apply the math library using appropriate program.	[Level:3]	[CO4]
14.	Demonstrate how Python handles recursion providing a relevant program to exemplify your explanation.	[Level:3]	[CO4]
15.	Explain the differences between Python's standard data types, such as integers, floats, and strings.	[Level:2]	[CO1]
16.	Summarize how type conversion is performed in Python and explain the difference between implicit and explicit type conversion.	[Level:2]	[CO1]
17.	Explain the difference between an expression and a statement in Python, providing examples of each.	[Level:2]	[CO1]
18.	Apply the if statement to write a Python program that checks whether a number is positive,negative,zero and prints a message if it is.	[Level:3]	[CO2]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any ***one*** question. The question carries 10 marks.

19.	Analyze the functionality of a Python program that uses both a while loop and a while with else loop to print factorial of a number.	[Level:4]	[CO2]
20.	Analyze the impact of string slicing in python using suitable program.	[Level:4]	[CO3]

(1 × 10 = 10 Marks)

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