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THIRD SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(CUFYUGP)

CSC3MN201 - PYTHON PROGRAMMING FOR SCIENCE

2024 Admission onwards

Maximum Time: 2 Hours | **Maximum Marks: 70**

Section A

All Questions can be answered. Each Question carries 3 marks (Ceiling: 24 Marks)

1	Explain multiple assignment in Python with an example.
2	Write a Python program to take user input and check if it is a vowel or consonant.
3	Differentiate between expressions and statements in Python.
4	Explain boolean expressions with an example.
5	Create a tuple of 5 elements and access the last element.
6	Write a Python program to import and use the math.sqrt() function.
7	Explain the difference between for and while loops.
8	Write a Python program to print numbers from 1 to 20 divisible by 3.
9	Write code to delete an element from a list by index.
10	Explain the purpose of comments and indentation in Python.

Section B

All Questions can be answered. Each Question carries 6 marks (Ceiling: 36 Marks)

11	Write a program to print multiplication table of a given number using for loop.
12	Demonstrate nested if statements with a suitable example.
13	Write a Python function to check if a given string is a palindrome.
14	Create a dictionary of 5 key-value pairs and demonstrate how to access all keys and values.
15	Explain list slicing with examples.
16	Write a Python program to generate 5 random integers between 1 and 50 using random module.
17	Write a recursive Python function to calculate the sum of first n natural numbers.
18	Explain importing multiple functions from Python libraries with examples.

Section C

Answer any ONE. Each Question carries 10 marks (1x10=10 Marks)

19	Write a Python program to demonstrate all types of loops and control statements.
20	Explain string manipulation techniques in Python with suitable examples.