

Fourth Semester Internal Examination, February 2026
Major Course in Mathematics
Fundamentals of Python and Sagemath
MAT4CJ205

Time: 1 Hr

Max Marks: 35

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|---------------------|-----------------|-----------|--|-------------|
| Name: Class: | Marks Scored | Section A | | Total Marks |
| | | Section B | | |
| | | Section C | | |

Section A

(Each question carries 3 marks, Max marks for section - 7)

1. Modify the expression `print(5+3*2)` to get a result of 16.
2. What is the output of the code?

```
import matplotlib.pyplot as plt
labels = 'Frogs', 'Hogs', 'Dogs', 'Logs'
fracs = [25, 25, 30, 20]
plt.pie(fracs, labels=labels)
plt.show()
```

3. Write the python code for printing the following Pandas Series

```
d    4
a    7
a   -5
c    3
```

Section B

(Each question carries 6 marks, Max marks for section - 18)

4. (a) Write a python program to print all multiples of 5 up to 55.
(b) Write a python program to check a number entered is even or odd
5. (a) Define global variable with an example.
(b) Write a python function to print the Fibonacci sequence up to given n.