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Roll no.

MID-SEMESTER THEORY EXAMINATION, FEBRUARY 2024

Course Code: **FCCS0102**Course Title: **Computer Programming**

Time- 1:30 Hours

Max. Marks- 15

Note: - Attempt all questions. Missing data/ information if any, may be suitably assumed & mentioned in the answer.

Q. No.		Marks	CO
1a	Explain the difference between Python's list and tuple data types. Provide scenarios where you would choose one over the other.	1	1
1b	Write a program to search and delete a particular item in the tuple.	2	1
2a	Explain the difference between 'break' and 'continue' keywords in python by giving suitable example.	1	1
2b	Give the output of the following function: <pre>def fib(x): if x == 0 or x == 1: return 1 else: a = fib(x-1) + fib(x-2) print(fib(x-1), "+", fib(x-2)) return a print(fib(4))</pre>	2	1
3a	Define encapsulation and abstraction object oriented concepts.	1	2
3b	Write a Python program to create a class 'Bank'. Include an attribute of type 'dictionary' which will have (account number , balance) as key-value pairs. Write a function of the class to make a deposit in a particular account. Create appropriate objects of the class to call the members of the class.	2	2
4a	Explain the concept of lambda functions in Python. Provide an example of using lambda functions.	1	2
4b	Write a program to create a parent class 'Quadrilateral' and child classes as 'Rectangle' and 'Square'. Write appropriate functions to calculate perimeter of rectangle and square.	2	2
5a	Using 'for' loop, add the elements in a list given by the user.	1	2
5b	What are keyword arguments? Explain a scenario where they are preferred over positional arguments.	2	2