

Time Allowed: 3 Hours

Note: Attempt all question. Part (a) of each question is compulsory and carries 4 marks, attempt any two parts from part (b), (c) and (d) carrying 8 marks each.

Q. No.	Question	Marks
1	A i. Write a for loop that prints numbers from 0 to 57, using range function. ii. Write a Python statement that swaps values of two variables. (only one line statement)	2+2
	B Write a program to display the Fibonacci sequences up to n th term where n is provided by the user.	8
	C Write a Python program that counts the number of occurrences of a letter in a string.	8
	D Write a program in Python to perform a linear search for a given Key number in the list and report Success or Failure.	8
2	A Explain the following list methods with an example. a) append() b) extend() c) insert() d) index()	4
	B Find the area and perimeter of a circle using functions. Prompt the user for input.	8
	C Demonstrate implementation of hierarchical inheritance in Python, with a program.	8
	D Write a Python program that counts the number of occurrences of a letter in a string, using dictionaries.	8
3	A Explain installing packages via PIP.	4
	B Explain the methods that are used to synchronize threads.	8
	C How to handle an exception using try except block? Explain with the help of a program.	8
	D Explain Data Analytics capabilities of Python. Explain Purpose and use of following Libraries of Python: i. NumPy ii. Pandas iii. Matplotlib	8
4	A What does the Django templates contain?	4
	B Explain Django framework and MVT model.	8
	C Develop a basic login and signup static webpage in Django	8
	D Explain the Django project directory structure?	8
5	A Write any 4 features available in Django web framework?	4
	B What are templates in Django or Django template language?	8
	C Develop a webpage to explain Django CRUD (Create, Retrieve, Update, Delete) Function Based Views	8
	D Explain process of Rendering HTML Forms (GET & POST) in Django	8