Day-2 One-Line Answer Questions

1. **Explain why Python is considered dynamically typed**.

variables can change their data type during runtime without explicit type declaration

1. **List three areas where Python is widely used.**

Web Development

Machine Learning

Data Science

1. **What is a reference cycle, and how is it managed in Python?**

A reference cycle occurs when objects reference each other in a way that creates a closed loop, preventing normal memory deallocation

Python Manages these by Garbage Collection and reference Counting

1. **What does the gc.collect() function do in Python?**

The gc.collect() function in Python triggers a manual garbage collection process.

1. **Why is Python popular in automation?**

Due to its extensive libraries ike (NumPy, pandas, Matplotlib), simple syntax, and ability to quickly write scripts that can automate complex, repetitive tasks with minimal code