

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**DMI-ST. EUGENE UNIVERSITY****ZAMBIA****DEGREE EXAMINATION – JUNE 2024****Semester: V****055 CS 55 PYTHON PROGRAMMING****Time: 3:00 Hours****Max. Marks: 100****Answer any FIVE Questions (5 x 20 = 100 Marks)**

1. a) What is Python and why is it popular in the programming community? (10 Marks)  
b) What are reserved keywords in Python? (10 Marks)
2. a) Write a Python function to calculate the factorial of a given number. (10 Marks)  
b) Explain the difference between strings and lists in Python. (10 Marks)
3. a) Explain the concept of inheritance in object-oriented programming. (10 Marks)  
b) Define data encapsulation. (10 Marks)
4. a) What is GUI (Graphical User Interface) programming, and why is it important in software development? (10 Marks)  
b) What are containers in GUI programming? (10 Marks)
5. a) Describe the process of creating a TCP/IP server in Python. (10 Marks)  
b) Describe the process of creating a UDP server in Python. (10 Marks)
6. a) Write a Python Program to Check if a Number is Odd or Even.  
Input: 20  
Output: 20 is an Even Number (10 Marks)  
b) How do control statements such as if, elif, and else help in Python programming? (10 Marks)
7. a) Describe the concept of single tasking in multithreading. (10 Marks)  
b) Explain the concept of multitasking. (10 Marks)