

Government City College (Autonomous)

R.T.No. : _____

Code No : 2023103125

B.Sc FIRST SEMESTER EXAMINATIONS, DECEMBER 2023

(AI & ML)

Problem Solving and Python Programming

Time: 3 hrs

Max. Marks: 80

Answer any five Questions:

5X4=20

1. What is Operator function?
2. What is Type conversion?
3. Explain the string slicing with an example.
4. Write short notes on command line arguments.
5. Explain Cloning Lists.
6. What is Histogram.
7. How to create a class in Python.
8. What is Polymorphism.

Answer the following Questions:

4X15=60

9. (a) Explain the notations of flowchart with examples.
Or
(b) Explain for Loop and While loop in Python with examples.
- 10 (a) What is string? Explain Indexing on Strings.
Or
(b) Explain the Built-in functions in Python with examples.
- 11 (a) Write a program in python to demonstrate Merge sort.
Or
(b) Explain Exception handling mechanism in Python.
- 12 (a) Write a program to demonstrate Inheritance in python.
Or
(b) Write notes on i) Lambda ii) List Comprehensions

Government City College (Autonomous),

Code No : 2022103325

H.T.No. : _____

B.Sc. THIRD SEMESTER EXAMINATIONS, DECEMBER 2023

AI & ML

Operating System with Linux

Max. Marks: 80

Time: 3 hrs

5X4=20

I. Answer any five Questions:

1. Explain about Types of Threads in Operating system.
2. What is Time Shared Operating System?
3. What is PCB?
4. Discuss about process Life cycle.
5. Explain about demand Paging.
6. Write about Virtual memory.
7. Write free space management.
8. Briefly Explain about Directory structure.

4X15=60

II. Answer the following questions:

9.(a) Explain about Layered structure of Operating System?

Or

(b) Explain about Types of Operating System?

10.(a) Explain about Process Synchronization?

Or

(b) Explain about below concept.

- i. Semaphores
- ii. Monitors

11.(a) Explain about Page replacement algorithms.

Or

(b) Explain about segmentation.

12.(a) Explain about File allocation methods?

Or

(b) Explain about disk scheduling algorithms?