

QP CODE: 25050603



Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION, DECEMBER 2025

First Semester

M Sc INFORMATION TECHNOLOGY

Core Courses - CA020102 - OPERATING SYSTEM WITH SHELL PROGRAMMING

2019 Admission Onwards

93CD6B90

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. What do you mean by multiprogramming ?
2. Differentiate process and program .
3. What is a process with example?
4. What is cascading termination?
5. What is process synchronization?
6. What is meant by Binary Semaphore?
7. Write different steps in the processing of a user program.
8. What are shared libraries?
9. Why is Linux called a stable operating system?
10. When is pwd command used?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Explain multicore systems with its advantages over single processor systems .
12. What are the two common models of interprocess communication ?
13. Describe interprocess communication.
14. Explain monitor usage.





15. Define paging hardware.
16. What is a page fault? Define the steps in handling a page fault.
17. Compare While..do and until..do loop with examples.
18. Explain the basic system tasks.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Write note on OS structures (a) Simple Structure (b) layered approach
20. Explain different scheduling criteria.
21. Explain different methods for handling Deadlock.
22. Describe how shell interprets a command and discuss the different types of shells used in Linux.

(2×5=10 weightage)

