

QP CODE: 25050591



Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION, DECEMBER 2025

First Semester

M Sc COMPUTER SCIENCE

Core Courses - CA010102 - OPERATING SYSTEM

2019 Admission Onwards

35F36E2D

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. How can you differentiate memory management and mass storage management functions of OS?
2. What are the major activities of an Operating System related to file management ?
3. Write short notes on Process.
4. What is Single thread?
5. Define Mutual – Exclusion implementation with Swap() instruction.
6. Explain about the Resource allocation graph.
7. Distinguish physical address space and logical address space.
8. How is free space management performed?
9. What do you meant by Open source Software?
10. List various shells in Linux system.

(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 is the speciality of peer-to-peer system ? Explain with necessary diagram .
13. Write a note on Interprocess communication.
14. Write a note on preemptive scheduling.





15. Write Resource request algorithm.
16. Explain the three main issues for Resource preemption with deadlock.
17. Explain LRU page replacement algorithm.
18. Define Fair Scheduling in Linux

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Write note on :- (a) Layered approach (b) Microkernel approach.
20. Explain different Process Scheduling Algorithms.
21. Explain the usage of Semaphores.
22. Explain the Memory management in Linux System.

(2×5=10 weightage)

