

24P259

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Name :

Reg. No :

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2025

(CBCSS-PG)

(Regular/Supplementary/Improvement)

CC19P CSS2 C07 - OPERATING SYSTEM CONCEPTS

(Computer Science)

(2019 Admission onwards)

Time: 3 Hours

Maximum: 30 Weightage

Part-A

Answer any *four* questions. Each question carries 2 weightage.

1. Show Linux process management.
2. Explain Unix Concurrency Mechanisms.
3. Illustrate contiguous memory allocation.
4. Sequence the various types of page table.
5. Illustrate Process Scheduling.
6. Explain the concept of Middleware.
7. Explain Mobile Operating System with examples.

(4 × 2 = 8 Weightage)

Part-B

Answer any *four* questions. Each question carries 3 weightage.

8. Define the concept of process creation and termination.
9. Define thread states.
10. Explain semaphores and monitors.
11. Discuss the concept of Bankers Algorithm.
12. Compute page faults for the following page reference string 1, 2, 3, 4, 5, 3, 4, 1, 6, 7, 8, 7, 8, 9, 7, 8, 9, 5, 4, 4, 5, 3. How many page faults would occur for the following replacement algorithms? Assume four frames and all frames are initially empty. a) LRU replacement. b) FIFO replacement. c) Optimal replacement
13. Demonstrate preemptive and non preemptive scheduling algorithm with examples.
14. Explain Distributed Message Passing.

(4 × 3 = 12 Weightage)

Part-C

Answer any *two* questions. Each question carries 5 weightage.

15. Define Operating system, its objectives, functions and types.
16. Discuss process interaction concept.
17. Demonstrate the concept of Windows Memory Management.
18. Demonstrate concept of Priority Inversion.

(2 × 5 = 10 Weightage)
