

25P259

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Name:

Reg.No:

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2026

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19PCSS2C07 - 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. Define threads.
2. Explain Race condition with example.
3. Demonstrate dynamic linking and overlays.
4. Implement Windows Memory Management System.
5. Illustrate Thread Scheduling.
6. Explain the concept of Middleware.
7. Describe clusters in mobile OS.

(4 × 2 = 8 Weightage)

Part-B

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

8. Define five state model.
9. Recognize Linux Process and Thread Management.
10. Explain Producer Consumer Problem.
11. Discuss deadlock detection and recovery concept.
12. Demonstrate paging.
13. Demonstrate Uniprocessor Scheduling and its types.
14. Explain Mobile Operating System with one example.

(4 × 3 = 12 Weightage)

Part-C

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

15. List the various Operating system types.
16. Interpret Unix Concurrency Mechanisms.
17. 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
18. Illustrate the characteristics of Real Time OS also explain rate monotonic scheduling.

(2 × 5 = 10 Weightage)
