D 122481 **(Pages : 2)** **Name.....**

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY) EXAMINATION, APRIL 2025

(CBCSS)

Computer Science

CSS 2C 07—OPERATING SYSTEM CONCEPTS

(2019 Admission onwards)

Time : Three Hours Maximum : 30 Weightage

Part A

Answer any **four** *questions.*

1. Explain how multiprogramming increases the utilization of CPU.
2. What is a Semaphore ?
3. What are the drawbacks of Monitors ?
4. Define overlay.
5. Mention the conditions under which a deadlock situation may arise ?
6. Write about multilevel feedback queue.
7. List out the obstacles of client/server computing ?

(4 × 2 = 8 weightage)

Part B

Answer any **four** *questions.*

8. List the difference between Unix and Linux ?
9. Explain how monitor overcomes the drawback of semaphores.
10. Define Virtual Memory ? Discuss the benefits of virtual memory technique.
11. What is Thrashing ? What is the cause of Thrashing ?
12. Give a note on Round Robin scheduling algorithm with a suitable example.

Turn over

13. Discuss the applications of real time operating system.

14. Compare the features of iOS and Android.

(4 × 3 = 12 weightage)

Part C

Answer any **two** *questions.*

15. With a neat sketch, explain the process state diagram.

16. Write about deadlock conditions and bankers algorithm in detail.

17. Explain the difference between External fragmentation and Internal fragmentation.

18. What is a page fault ? Explain the steps involved in handling a page fault with a neat sketch.

(2 × 5 = 10 weightage)