

C 23322

(Pages : 2)

Name.....

Reg. No.....

**SECOND SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)  
EXAMINATION, APRIL 2022**

(CBCSS)

Computer Science

CSS 2C 07—OPERATING SYSTEM CONCEPTS

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

**General Instructions**

1. *In cases where choices are provided, students can attend **all** questions in each section.*
2. *The minimum number of questions to be attended from the Section / Part shall remain the same.*
3. *The instruction if any, to attend a minimum number of questions from each sub section / sub part / sub division may be ignored.*
4. *There will be an overall ceiling for each Section / Part that is equivalent to the maximum weightage of the Section / Part.*

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

1. Differentiate multi core and multi-threading.
2. Differentiate between deadlock prevention and avoidance.
3. Give the relevance of "Monitors" in operating system.
4. Explain the concept and use of overlays.
5. Define non-preemptive and pre-emptive scheduling algorithms.
6. Explain priority inversion.
7. Why do we require Remote Procedure Call ?

(4 × 2 = 8 weightage)

**Turn over**

**Section B**

*Answer any **four** questions.*

*Each question carries 3 weightage.*

8. Explain five state model of processes.
9. List and explain functions of an Operating System.
10. Explain dining Philosophers problem.
11. Demonstrate the concept of demand paging with example.
12. Outline dynamic linking and dynamic loading.
13. Explain Multilevel Feedback queue scheduling.
14. Write a note on Service oriented architecture.

(4 × 3 = 12 weightage)

**Section C**

*Answer any **two** questions.*

*Each question carries 5 weightage.*

15. Discuss aspects of Unix concurrency mechanism.
16. Discuss the need and implementation details of virtual memory.
17. With suitable example, demonstrate the working of FCFS, SJF and RR scheduling algorithms.
18. Compare the features of iOS and Android.

(2 × 5 = 10 weightage)