22P259 (Pages: 2) Name: .....

Reg.No: .....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2023

(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. Cite the different types of threads.
2. Discuss Unix Concurrency Mechanisms.
3. Illustrate address binding and dynamic loading.
4. Demonstrate segmentation with example.
5. Demonstrate premptive and non premptive scheduling.
6. Describe Distributed Message Passing.
7. Discuss Mobile Operating System with examples.

(4 × 2 = 8 Weightage)

Part-B

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

8. Recall the concept of Operating system with its functions and give an example.
9. Define five state model.
10. Discuss message passing in OS.
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. Illustrate Priority Inversion concept.
14. Discuss three-tier architecture.

(4 × 3 = 12 Weightage)

Part-C

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

15. Define Linux Process and Thread Management.

16. Discuss process interaction concept.

17. Demonstrate the concept of Windows Memory Management.

18. Illustrate Thread Scheduling and process scheduling concepts.

(2 × 5 = 10 Weightage)

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