(Pages: 2)

Name : ....

Reg No. : ....

SIXTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2025
(CBCSS-UG)

(Regular/Supplementary/Improvement)

CC19U BCS6 B12 / CC19U BCA6 B12 - OPERATING SYSTEMS

(Computer Science / Computer Application - Core Course)

(2019 Admission onwards)

Time: 2 Hours

Maximum: 60 Marks

Credit: 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. Explain the term degree of multiprogramming.

2. Explain different types of OS.

3. Explain a thread. Write the benefits of multithreaded programming.

4. Explain critical section.

5. Describe file permissions in Linux.

6. Explain the use of cp command in shell scripting.

7. Explain an example of a preemptive scheduling algorithm.

8. Explain starvation. How it can be resolved?

9. Describe a semaphore.

10. Describe logical and physical address space.

11. Describe TLB.

12. Explain authorization.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Describe process state diagram.

14. Explain with suitable example conditional commands in shell scripts.

15. Describe a shell program to print even numbers between 0 and 100.

16. Explain different methods for allocation in a File System.

17. Demonstrate paging with example.

18. Describe thrashing. Explain how thrashing happens?

19. Describe the features and architecture of Android OS.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. Explain deadlocks. Explain the necessary conditions for a dead lock to occur. How deadlocks can be detected?

21. Illustrate the working of two page replacement algorithms.

(1 × 10 = 10 Marks)

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