SIXTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U BCS6 B12 / CC19U BCA6 B12 - OPERATING SYSTEMS

(Computer Science / Computer Application - Core Course)

(2019 Admission onwards)

Time : 2.00 Hours   Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

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

1. Explain PCB.

2. Describe a thread. Write the benefits of multithreaded programming.

3. Explain a critical section problem.

4. Describe file permissions in Linux.

5. Describe the use of cat command using an example.

6. Explain the characteristics of a good process scheduler ? Explain.

7. Explain starvation. How it can be resolved?

8. Explain the need and working of semaphore?

9. Distinguish Sequential and direct access methods.

10. Explain a logical address.

11. Describe the term Swapping. Explain the main advantage of swapping.

12. Explain the term Authorization.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Explain the need for operating systems and comment on OS as a process manager.

14. Distinguish between Real time and Time sharing systems.

15. Describe the commands used for Navigating the Linux File system.

16. Explain a shell program to print even numbers between 0 and 100.

17. Illustrate the main difference between Paging and Segmentation. Explain in detail.

18. Describe Belady's anomaly.

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 the conditions required for deadlock to be possible. Briefly explain each.

21. Make a short note on round robin scheduling with an example. Explain the importance of time quantum.

(1 × 10 = 10 Marks)

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