

OPERATING SYSTEMS

Time : Three hours

Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. What do you mean by Buffering and Spooling? Explain.
2. Compare Non-Preemptive scheduling with preemptive scheduling.
3. Discuss the contents of Process Control Block.
4. Describe the memory management technique which support Non-multiprogramming environment.
5. Discuss the advantages of Demand Paging Memory Management.
6. Discuss about 'Early operating systems'.
7. Describe the physical characteristics of Disk.
8. Describe the various file operations.

9. What is meant by synchronous message exchange? Explain.

10. Compare Distributed Operating System with Network Operating System.

PART B — ($4 \times 10 = 40$ marks)

Answer any FOUR questions.

11. Describe the hierarchical view of an operating system structure.

12. Describe the FCFS scheduling with an example.

13. Describe the seek optimization strategies – SCAN, E-SCAN.

14. Describe the various commands handled while working with DOS Directories.

15. With an example, explain the page replacement algorithm. Least Recently used.

16. How can we prevent dead locks? Explain in detail.

PART C — ($2 \times 15 = 30$ marks)

Answer any TWO questions.

17. (a) Describe the Banker's Algorithm in detail.

(b) Describe the Paging memory Allocation in detail.

18. Describe the major functions of each categories of an operating system.

19. (a) Describe the various ways to access the information stores in the file.

(b) Describe the various system calls handled for basic file manipulation in Unix.