**MAY 2025**

# P/ID 16305/PIT2D/ PCAEA

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What is time sharing OS?

2. List the functionality of kernel.

3. Write system calls for process control in UNIX.

4. What is process scheduling?

5. Define deadlock.

6. What is semaphore?

7. Define fragmentation.

8. What is demand paging?

9. What is executable file?

10. Define direct file access.

11. Write two types of software interrupts in Windows.

12. What is paging mechanism?

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Write short notes on I/O systems.

14. Explain process states with neat sketch.

15. Discuss Mutex locks in detail.

16. Explain swapping with an example.

17. Explain FFCS disk scheduling in detail.

18. Discuss two level directory structure with neat diagram.

19. Explain UNIX kernel modules.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Elaborate the Round robin scheduling algorithm with an example.

21. Explain dining — philosophers problem with an example.

22. Discuss paging hardware with TLB in detail.

23. Explain file operations in detail.

24. Elaborate windows block diagram with neat diagram.

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