

**B.Sc. DEGREE EXAMINATION, APRIL 2020**  
**III Year V Semester**  
**Operating Systems**

**Time : 3 Hours**

**Max.marks :75**

**Section A** ( $10 \times 2 = 20$ ) Marks

Answer any **TEN** questions

1. What is an Operating system?
2. Write a note on : Virtual memory.
3. Write the state of a process.
4. Define : Deadlock.
5. Distinguish between logical and physical address.
6. Define : Address binding.
7. What is paging?
8. What do you mean by thrashing?
9. Write a note on: Directory structure.
10. What is consistency semantics
11. Define: Critical Region.
12. Write a note on: Threats.

**Section B** ( $5 \times 5 = 25$ ) Marks

Answer any **FIVE** questions

13. Describe the Operating System services.
14. Explain the dining- philosophers problem.
15. Explain the concept of Segmentation in brief.
16. Write a note on : Demand Paging.
17. Discuss the issues with user authentication.
18. Write a note on: Inter process communication
19. Briefly explain semaphores.

**Section C** ( $3 \times 10 = 30$ ) Marks

Answer any **THREE** questions

20. Explain the various CPU Scheduling algorithms in detail.
21. Discuss the deadlock avoidance with Banker's algorithm.
22. Discuss in detail about internal and external fragmentation.
23. Describe the FIFO page replacement algorithm and compare the same with optimal page replacement.
24. Write notes on access matrix and its implementation.

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