MAY 2021

P/ID 16305/PIT2D/ PCAEA

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Define Interrupt.
2. List out the operating system services.
3. What is time sharing system?
4. Define CPU scheduling.
5. Define system call.
6. What is demand paging?
7. What do you mean by Best fit, First fit and Worst fit?
8. Distinguish between internal and external fragmentation.
9. Write the code for producer— consumer problem.
10. What are the allocation methods of a disk space?
11. Specify types of system directories.
12. Write a short note on linux network services.

PART B — ($5 \times 6 = 30$ marks)

Answer any FIVE questions.

13. What is SMP? Explain its architecture.

14. Describe the differences between symmetric and asymmetric multiprocessing.

15. Explain segmentation with respect to hardware and protection.

16. Explain FCFS disk scheduling algorithm.

17. Discuss how deadlocks could be detected in detail.

18. Write short notes on LRU, FIFO and clock replacement strategies?

19. Explain the various system administrator roles in linux.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

20. Enumerate the different operating system structure and explain with neat sketch.

21. Describe the actions taken by a kernel to context-switch between processes

22. Provide two programming examples in which multithreading does not provide better performance than a single threaded solution.

23. Explain the various file directory structures,

24. Explain in detail about virtualization.

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