Operating System

7 Years Question

Assignment

Quote of the day: **" The greatest amount of wasted time is the time not getting started "**

1. What is process ? Explain the different process states with the help of a state diagram.
2. Describe the following system.
   a. Multi-processor
   b. Batch os
3. Define:
   a. Scheduler
   b. Context switch
4. Explain real time os with the help of a diagram. List its types.
5. List services provided by OS. Explain any 4 of them.
6. Define PCB with suitable diagram.
7. What is a system call? Explain use of any two categories of system call.
8. List components of os. Explain any one in detail.
9. Describe types of schedulers in scheduling.
10. With suitable diagram explain Inter-process communication.
11. Explain time sharing operating system.
12. Compare UNIX and LINUX w.r.t user interface , processing and speed.
13. Explain pre-emptive scheduling and non-preemptive scheduling.
14. Explain interprocess communication model with diagram.
15. Explain generations of operating system

16. List different types of operating system. Explain any 2 advantages of multi-processor system.
17. Explain the structure of UNIX.
18. Describe any four activities of process management and memory management.
19. List any four system calls for device management and communication.
20. Describe any four secondary storage management activities.
21. What is thread? Explain user level and kernel level thread.
22. Explain UNIX is differ from LINUX w.r.t architecture , applications , case of operations and system requirement.
23. What is system call ? Explain open() system call and close() system call.
24. What is inter-process communication? Explain any one technique of it.
25. Write a short note on basic memory management.
26. Describe how context switching is executed by operating system?
27. Describe of evolution of operating system
28. List and explain various types of multi-threading models.
29. Differentiate between short term , medium term and long term scheduling.
30. Describe distributed operating system.
31. With neat diagram explain real time os . List any 4 applications .
32. State and describe services provided by Operating system.
33. Describe activities of I/O management and File management.
34. With neat diagram explain multi-level queue scheduling.
35. Write use of following system calls.
    a. Fork()
    b. Exec()
    c. Abort()
    d. End()
36. State benefits of using thread.

37. Explain many to many and many to one multithreading model with its advantages and disadvantages.
38. Describe multi-programming and multi-tasking.
39. Differentiate between short term and long term scheduler.
40. Describe first generation of operating system with its 2 advantages and disadvantages.
41. List and draw an labelled diagram of computer system.
42. List merits and demerits of I/O scheduling.
43. Explain the working of message passing and shared memory.
44. Describe 2^{nd} & 3^{rd} generations of operating system.
45. Explain dual mode of operations of an operating system
46. Write any 4 system calls related to device management.
47. Write any two uses of following operating system tools.
    a. Performance monitor
    b. Task scheduler
    c. User management