

Concept of Operating System

Assignment no 1

1. What is a Scheduler? List and Explain any one type of it.
2. State any four criteria in CPU scheduling
3. What is memory partitioning? State their types..
4. With the help of a diagram describing a linked list
5. Compare User level thread and Kernel level Thread.
6. How to prevent Deadlock? Explain in brief.
7. With the help of diagrams describe the following multithreading models.
 - i) Many to Many
 - ii) one to one
8. Calculate average waiting time for following data using First Come First Served (FCFS) and Shortest Job First Pre-emptive (SJF) algorithms.

Process	Burst Time	Arrival Time
P0	08	0
P1	04	1
P2	05	2
P3	03	3

9. Solve a given problem by using the FCFS scheduling algorithm. Draw the correct gantt chart and calculate average waiting time and turnaround time.

Process	Burst Time	Arrival Time
P1	10	0
P2	29	1
P3	3	2
P4	7	3

10. Calculate average waiting time for following data using First Come First Served (FCFS) and Round Robin scheduling (Time Slice=3)

Process	Burst Time	Arrival Time
P0	10	0
P1	04	1
P2	07	2
P3	06	3
P4	05	4

11. Calculate average waiting time for Shortest Job First Pre-emptive (SJF) and round robin algorithms
table(time slice= 4ms)

Process	Burst Time	Arrival Time
P1	10	0
P2	4	1
P3	9	2
P4	6	3

12. Explain Long-Term Scheduler, Medium-Term Scheduler ,Short-Term Scheduler.
13. Explain IPC with a diagram in detail.
14. What is deadlock? Describe necessary conditions leading to deadlock.
15. What is Thread? Explain it's types also with neat labelled diagram
16. Describe variable partitioning technique of memory management with example.
17. Explain need of memory management technique.
18. With suitable diagram, describe the concept of memory partitioning techniques.