Unit 1: Overview Of Operating System

Q.1 Advantages of Multiprocessor System (S-22, S-19, S-17)
Q.2 Realtime OS and Applications (W-19, S-19, S-17, W-18)
Q.3 Multiprogramming OS and Multitasking OS difference (W-22, W-18)
Q.4 Working of Time Sharing OS (S-22, S-18, W-17)
Q.5 Multiprogramming OS (w-19, W-17)
Q.6 Components of OS (W-22, S-18)
Q.7 CLI & GUI difference (S-22)

Unit 2: Services and Components of OS

Q.1 List 4 services provided by OS (W-19, S-22, W-22)
Q.2 Explain any 4 types of system calls (S-22, S-19, S-18)
Q.3 Components of Os. Explain process management, device management (W-19, S-22, W-22)
Q.4 OS Tools (W-19)

Unit 3: Process Management

Q.1 Process state diagram & explanation. (S-22, w-19, w-22)
Q.2 Process commands (ps, wait, sleep, exit, kill) (W-19, S-22, W-22)
Q.3 IPC (Inter process communication model) (W-19, S-19)
Q.4 Difference between shared memory system & message passing systemat IPC (S-22)
Q.5 Explain shared memeory model at IPC (W-22)
Q.6 Define process and PCB (W-19, W-22, S-18, W-18)
Q.7 Compare between Long term & Short term scheduler / State & describe types of scheduler (W-19, W-22)
Q.8 Multithreading model explain in detail a) One to One b) Many to one c) Many to Many (S-22, W-19, W-18, S-19)

Unit 4: CPU Scheduling & Algorithms

Q.1 CPU - I/O burst cycle (Diagram & Explanation) (W-19, W-22)
Q.2 Scheduling criteria (w-19 , S-18)
Q.3 Describe conditions for deadlock prevention (W-18, 17, S-18)
Q.4 Banker Algorithm (S-22, S-19)
Q.5 Round Robin Algorithm (W-19, S-19)
Q.6 Numerical based on SJF & FCFS (S-22, W-22, S-19)

Extras:
Q.1 Criteria for scheduling
Q.2 Diffrence between pre-emptive scheduling & non pre-emptive scheduling.
Q.3 CPU - I/0 burst cycle
Q.4 Numericals on preemptive SJF & Round Robin

Unit 5: Memory Management
Q.1 Explain partiotioning & its types
Q.2 Describe free space managment technique with diagram
Q.3 LRU page replacement algorithm (Numericals to calculate pager fault)
Q.4 Define virtual memory w.r.t paging
Q.5 Draw pagin hardware diagram and explain working.
Q.6 FIFO (Numericals to calc. page fault)

Extras
1) Define virtual memory
2) Difference between paging & segmentation.
3) Define term fragmentation.

Unit 6: File Management
Q.1 file Operations
Q.2 File Attributes
Q.3 Linked file allocation (chained file allocation)
Q.4 Describe sequential & direct access methods

Q.5 Different file allocation methods - contiguous file allocation
Q.6 File Structure
- Single level
- Two level
- tree Structure