OPERATING SYSTEM IMPORTANT BOARD QUESTIONS

Chapter No 1 (Introduction to Operating System)

1. What is multiprocessor system? Give two advantages of it
2. With examples explain what is distributed system
3. What is operating system? Explain the generation computer system?
4. What is real time operating system? elaborate with an example [applications]
5. Differentiate between multiprogramming and multi-tasking OS
6. Define operating system. state the different types of operating system
7. Explain the multi-processor systems concept
8. Describe multi programming and multi-tasking
9. Explain Batch operating system

Chapter 2 (Operating System Structure)

1. What is system call? State any four system calls for process
2. Draw and explain microkernel operating system structure
3. Explain any six operating system services
4. Explain any three system components with their activities
5. Describe monolithic operating system structure.
6. Describe file management. Enlist the system calls for file management
7. List different types of system calls mention their uses
8. List system component. Explain file management in details.
9. Write neat diagram. Explain operating system structure.
10. List any four functions of operating systems
11. What is the purpose OS system calls? state two system calls with its functions
12. Explain the six-file operating performed by the OS for a disk file.
13. Explain layered operating system structure.

Chapter 3 (Process Management)

1. Explain PCB (process control block) with suitable diagram.
2. With advantages and disadvantages explain one-to-one model and many-to-many model for multitasking
3. With suitable diagram explain inter process communication models
4. Draw and describe process state diagram
5. Describe multithreading and its models
6. Differentiate between short term, long term and medium term scheduler
7. Explain concept of context switching
8. What is process?explain process in detail with the help of state diagram.
9. Explain one-to-one multithreading model of operating system
10. What is a thread? Explain many-to-many threading model with sample diagram.
11. What is thread? Explain advantages of thread.

Chapter 4 (Scheduling)

1. State and explain different criteria for scheduling algorithm.
2. Describe the terms i) Pre-emptive scheduling. ii) Non-pre-emptive scheduling
3. State and explain necessary condition for deadlock
4. Explain Round Robin scheduling algorithm with example
5. The jobs are scheduled for execution as follows

   Solve the problem by using i) SJE ii) FCFS Also find average waiting time using Gantt chat.

Process	Arrival	Burst time
P1	0	8
P2	1	4
P3	2	9
P4	3	5

6. List scheduling algorithm. Explain any two with example.
7. State the meaning of deadlock. Explain how deadlock can be handled
8. Explain Round Robin scheduling algo with sample example
9. Explain the pre-emptive and non-pre-emptive type scheduling

Chapter 5 & 6 (File system and memory management)

1. Explain the concept of a variable memory partitioning with examples
2. Consider the reference string 12,3,4,5,1,2,5,1,2,3,45 search for pages 7,0,1,2,0,3,0,4,2 using FIFO page replacement algorithm. State its drawback
3. What are different file allocation methods? Explain anyone in detail with example
4. Describe sequential and direct access methods.
5. With suitable diagram explain contiguous allocation method
6. Consider the reference string search for pages 7,0,1,2,0,3,0,4,2,3,0,3,2,1,2,0,1,7,0,1 using FIFO page replacement algorithm. State its drawback
7. Explain linked allocation with suitable diagram also give any four differences between Linked and contagious
8. What is virtual memory? State four techniques for page replacement
9. Differentiate between paging and segmentation
10. Define swapping when it is needed.
11. Describe single level and two level directory structure
12. List and explain attributes of files.