

- What do you mean by Virtual Memory? Write down its advantages?
- What is Process Scheduling, CPU Scheduling, Disk Scheduling? Explain Short, Medium and Long term Scheduler?
- Compare Paging and Segmentation?
- Explain concept of a process with its components ?
- Explain various Disk scheduling algorithms with Illustrations ?
- Explain the following in brief Contiguous and Linked list allocation for implementing file system?
- Discuss advantages and disadvantages of the Buffer cache ?
- Define process and thread. What is PCB ? Explain its various entries with their usefulness ?
- What is an Operating System? Write down its desirable characteristics ?
- Explain different types of OS with examples of each ?
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- Explain different types of OS with examples of each ?
- Define a deadlock ? Write down the conditions responsible for deadlock? How can we recover from deadlock ?
- What is Binary and Counting semaphores ?
- What do you mean by PCB? Where is it used? What are its contents? Explain.
- What are the various services provided by Operating system ?
- Describe necessary conditions for deadlocks situation to arise.
- What are System call? Explain briefly about various types of system call provided by an Operating System?
- What is File? What are the different File attribute and operations?
- Write a Semaphore solution for dining Philosopher's problem?
- What are points to be consider in file system design? Explain linked list allocation in

detail?

- Write the different state of a process with the help of Process state diagram?
- Explain CPU schedulers in operating system?
- Consider the following page reference string:1,2,3,4,5,3,4,1,2,7,8,7,8,9,7,8,9,5,4,5.
How many page faults would occur for the following replacement algorithm, assuming four frames:a) FIFOb) LRU
- Write a Semaphore solution for dining Philosopher's problem?
- What do you mean by paging in operating system ?
- Explain Network operating system?
- What is Mutex in operating system?
- Write the different state of a process with the help of Process state diagram?

OS Hindi Video

Q1. What do you mean by Virtual Memory? Write down its advantages?

Ans. [Click Here.](#)

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Ans. [Click Here.](#)

Q3. What is Process Scheduling, CPU Scheduling, Disk Scheduling? Explain Short, Medium and Long term Scheduler?

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Ans. [Click Here.](#)

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Q7. Define process and thread. What is PCB? Explain its various entries with their usefulness?

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Q8. Discuss advantages and disadvantages of the Buffer cache?

Ans. [Click Here.](#)

Q9. Explain different types of OS with examples of each.

Ans. [Click Here.](#)

Q10. What is an Operating System? Write down its desirable characteristics?

Ans. [Click Here.](#)

Q11. Write short notes

- a) Multi processor operating system
- b) Distributed operating system
- c) Threads
- d) File protection

Ans. [Click Here.](#)

Q12. Define a deadlock? Write down the conditions responsible for deadlock? How can we recover from deadlock?

Ans. [Click Here.](#)

Q13. What are the various services provided by Operating system?

Ans. [Click here.](#)

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Ans. [Click Here.](#)

Q16. What is File? What are the different File attribute and operations?

Ans. [Click Here.](#)

Q17. What are System call? Explain briefly about various types of system call provided by an Operating System?

Ans. [Click Here.](#)

Q18. Describe necessary conditions for deadlocks situation to arise.

Ans. [Click Here.](#)

Q19. Consider the ahead set of processes with the length of CPU burst time given in “m” sec-

Process	CPU Burst Time	Priority
P1	9	3
P2	3	1
P3	2	4
P4	5	2

The processes are assumed in the order P1, P2, P3, P4 with initial time zero. Calculate average waiting time and average turnaround time for the Priority CPU scheduling

algorithm.

Ans. [Click Here.](#)

Q20. What are points to be consider in file system design? Explain linked list allocation in detail?

Ans. [Click Here.](#)

Q21. Write a Semaphore solution for dining Philosopher's problem?

Ans. [Click Here.](#)

Q22. Briefly explain the following:

- 1) Mutual exclusion
- 2) Critical section problem

Ans. [Click Here.](#)

Q23. Consider the following page reference string:

1,2,3,4,5,3,4,1,2,7,8,7,8,9,7,8,9,5,4,5. How many page faults would occur for the following replacement algorithm, assuming four frames:

- a) FIFO

b) LRU

Ans. [Click Here.](#)

Q24. What do you mean by Contiguous Memory Allocation?

Ans. [Click Here.](#)

Q25. Describe Deadlock Handling in OS?

Ans. [Click Here.](#)

Q26. Explain CPU schedulers in operating system?

Ans. [Click Here.](#)

Q27. What is PCB in operating system?

Ans. [Click Here.](#)

Q28. Write the different state of a process with the help of Process state diagram?

Ans. [Click Here.](#)

Q29. Consider the following snapshot of a system.

Answer the following questions using Bankers algorithm-

(i) What is the content of the matrix need?

(b) Is the system in a safe state?

(iii) If a request from process P1 arrives for (0, 4, 2, 0) can the request be granted immediately?

Ans. [Click Here.](#)

Q30. Consider a disk queue with requests for I/O to blocks on cylinders 86, 1470, 913, 1774, 948, 1509, 1022, 1750, 130. The CLOOK scheduling algorithm is used. The head is initially at cylinder number 143. The cylinders are numbered from 0 to 4999. Find-

(a) Total head movement?

(b) Total seek time, if seek takes 2msec/cylinder move?

Ans. [Click Here.](#)

Q31. Consider a disk queue with requests for I/O to blocks on cylinders 86, 1470, 913, 1774, 948, 1509, 1022, 1750, 130. The LOOK disk scheduling algorithm is used. The head is initially at cylinder number 143. The cylinders are numbered from 0 to 4999. Find-

(a) Total head movement?

(b) Total seek time, if seek takes 2msec/cylinder move?

Ans. [Click Here.](#)

Q32. Consider a disk queue with requests for I/O to blocks on cylinders 86, 1470, 913, 1774,

948, 1509, 1022, 1750, 130. The C-SCAN disk scheduling algorithm is used. The head is initially at cylinder number 143. The cylinders are numbered from 0 to 4999. Find-

- (a) Total head movement?
- (b) Total seek time, if seek takes 2msec/cylinder move?

Ans. [Click Here.](#)

Q33. Consider a disk queue with requests for I/O to blocks on cylinders 86, 1470, 913, 1774, 948, 1509, 1022, 1750, 130. The SCAN disk scheduling algorithm is used. The head is initially at cylinder number 143. The cylinders are numbered from 0 to 4999. Find-

- (a) Total head movement?
- (b) Total seek time, if seek takes 2msec/cylinder move?

Ans. [Click Here.](#)

Q34. Consider a disk queue with requests for I/O to blocks on cylinders 86, 1470, 913, 1774, 948, 1509, 1022, 1750, 130. The SSTF disk scheduling algorithm is used. The head is initially at cylinder number 143. The cylinders are numbered from 0 to 4999. Find-

- (a) Total head movement?
- (b) Total seek time, if seek takes 2msec/cylinder move?

Ans. [Click Here.](#)

Q35. Consider a disk queue with requests for I/O to blocks on cylinders 86, 1470, 913, 1774, 948, 1509, 1022, 1750, 130. The FCFS disk scheduling algorithm is used. The head is initially at cylinder number 143. The cylinders are numbered from 0 to 4999. Find-

(a) Total head movement?

(b) Total seek time, if seek takes 2msec/cylinder move?

Ans. [Click Here.](#)

Q36. Consider the following page reference string-

0, 1, 1, 2, 3, 4, 3, 3, 1, 0, 2.

How many page fault and page hit would occur for the LRU page replacement algorithm, assuming 4 frames being made available?

Ans. [Click Here.](#)

Q37. Consider the following page reference string-

0, 1, 1, 2, 3, 4, 3, 3, 1, 0, 2.

How many page fault and page hit would occur for the OPTIMAL page replacement algorithm, assuming 4 frames being made available?

Ans. [Click Here.](#)

Q38. Consider the following page reference string-

0, 1, 1, 2, 3, 4, 3, 3, 1, 0, 2.

How many page fault and page hit would occur for the MRU page replacement algorithm, assuming 4 frames being made available?

Ans. [Click Here](#).

Q39. Consider the following page reference string-

0, 1, 7, 2, 3, 2, 7, 1, 0, 3.

How many page fault and page hit would occur for the FIFO page replacement algorithm, assuming 4 frames being made available?

Ans. [Click Here](#).

Q40. Consider the following processes and the related data-

Process	Arrival Time	CPU Burst Time
P1	0	8
P2	3	7
P3	5	6
P4	8	4

Using Round Robin CPU scheduling algorithm draw Gantt chart and calculate average waiting time, average turnaround time, average response time and throughput?

Ans. [Click Here.](#)

Q41. Consider the following processes and the related data-

Process	Arrival Time	CPU Burst Time
P1	0	20
P2	3	7
P3	5	6
P4	10	10

Using SJF non preemptive CPU scheduling algorithm draw Gantt chart and calculate average waiting time, average turnaround time, average response time and throughput?

Ans. [Click Here.](#)

Q42. Consider the following processes and the related data-

Process	Arrival Time	CPU Burst Time
P1	0	20
P2	3	7
P3	5	6

P4	10	10
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Using SJF preemptive CPU scheduling algorithm draw Gantt chart and calculate average waiting time, average turnaround time, average response time and throughput?

Ans. [Click Here.](#)

Q43. Consider the following processes and the related data-

Process	Arrival Time	CPU Burst Time
P1	0	8
P2	2	5
P3	3	9
P4	4	3

Using SRTF (SJF preemptive) CPU scheduling algorithm draw Gantt chart and calculate average waiting time, average turnaround time, average response time and throughput?

Ans. [Click Here.](#)

Q44. What is Mutex in operating system?

Ans. [Click Here.](#)

Q45. Explain Network operating system?

Ans. [Click Here.](#)

Q46. What do you mean by paging in operating system.

Ans. [Click Here.](#)

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