

Sec-8

Q11) What are various scheduling criteria for CPU scheduling? Define SCAN & SCAN scheduling algorithm.

Sol<sup>n</sup>

Scheduling criteria :-

The scheduling policy determines the importance of each of criteria. Some commonly used criteria are:

→ CPU utilization :-

- CPU utilization is the average fraction of time, during which the processor is busy.
- The load on the system affects the level of utilization that can be achieved.

→ Throughput :-

- Throughput refers to the amount of work completed in a unit of time.
- The number of processes the system can execute in a period of time.

→ waiting time :-

- The average period of time a process spends waiting
- waiting time may be expressed as turnaround time less the actual execution time.

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→ Turnaround time ÷

- The interval from the time of submission of a process to the time of completion is the turnaround time.

→ Response time ÷

- Response time is the time from the submission of a request until the first response is produced.

→ Fairness ÷

- Avoid the process from the starvation.

## SCAN Disk Scheduling Algorithm

- In SCAN disk scheduling algorithm, head starts from one end of the disk & moves towards the other end
- Servicing requesting in b/w one by one & reach the other end.

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## C-SCAN Disk Algorithm

Circular SCAN (C-SCAN) Scheduling algorithm is a modified version of SCAN Disk Scheduling algorithm that deals with the inefficiency of SCAN algorithm by servicing the requests more uniformly.