

Module 6

Page No.

Date

* Disk Scheduling Algorithms

1) FCFS (First Come First Served)

- Requests are served in the order of their arrival.

- Numerical / Example

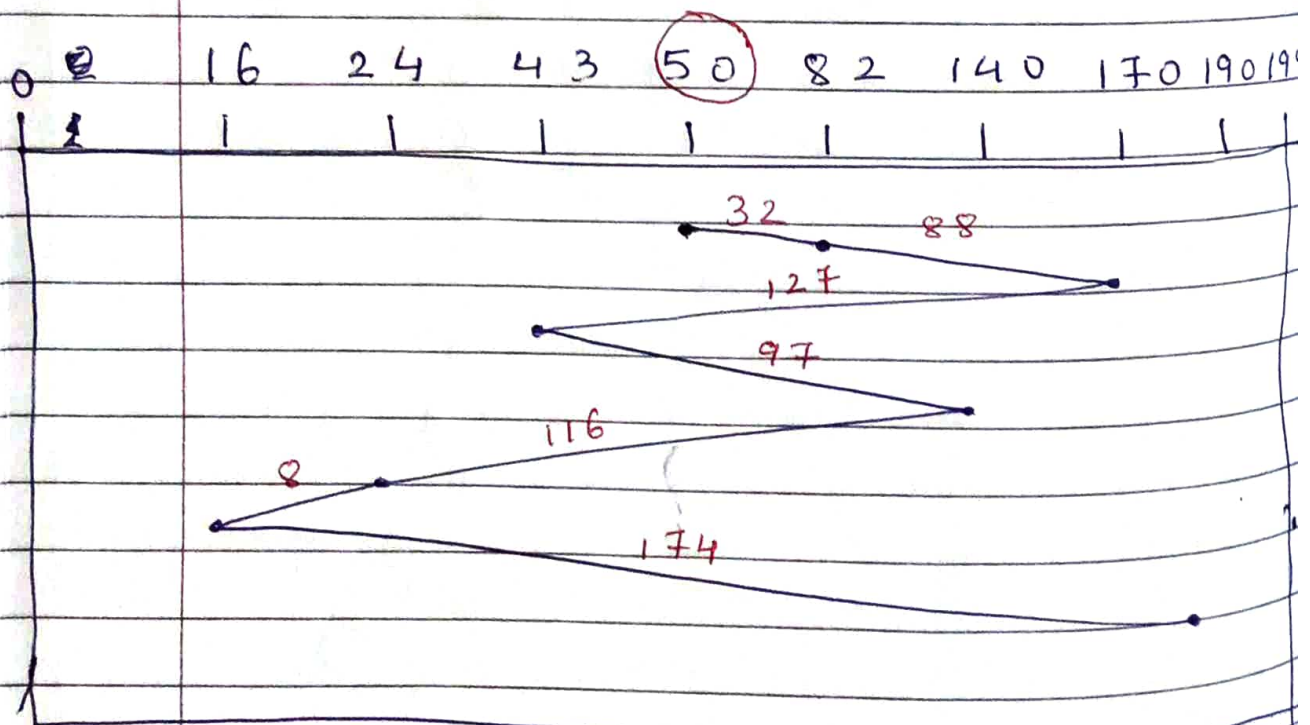
A disk contains 200 tracks (0-199).

Request queue contains track no.

82, 170, 43, 140, 24, 16, 190.

Current position of R/W head = 50.

Calculate total no. of track movement by R/W head.



Head Movement / track movement

$$= 32 + 88 + 127 + 97 + 116 + 8 + 174$$

$$= 642$$

Advantage

- 1) All request are treated equally.

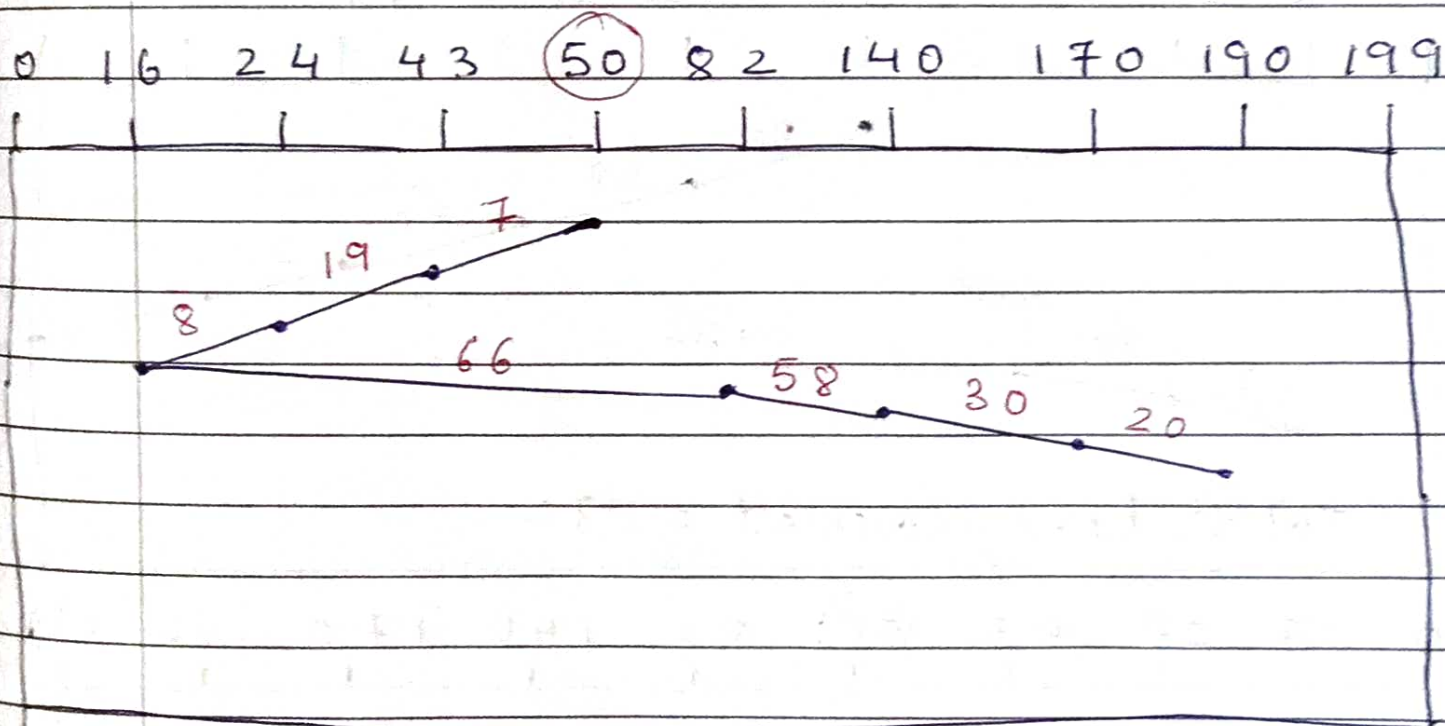
Disadvantage

There is lot of unnecessary seeking.

- 2) SSTF (Shortest Seek Time First)
- Requests closest to the current position of head is selected.

Example - 200 tracks (0 - 199)

Request queue - 82, 170, 43, 140, 24, 16, 190. Current position of R/w head = 50



$$\text{Total head movement} = 7 + 19 + 8 + 66 + 58 + 30 + 20 = 208$$