OS Assignment 10 Report

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1. Disk scheduling

(1) seek time; rotation latency; transfer time

(2) Use FIFO\SSTF\SCAN\CSCAN algorithm to read the six sectors

- FIFO
  Track access sequence: 70, 30, 90, 120, 60, 20
  Total time is 260ms. Listed as below

	70	**30**	**90**	**120**	**60**	**20**
seek time	(100-70)*1ms=30ms	(70-30)*1ms=40ms	(90-30)*1ms=60ms	(120-90)*1ms=30ms	(120-60)*1ms=60ms	(60-20)*1ms=40ms

- SSTF
  Track access sequence: 90, 70, 60, 30, 20, 120
  Total time is 180ms. Listed as below

	90	**70**	**60**	**30**	**20**	**120**
seek time	(100-90)*1ms=10ms	(90-70)*1ms=20ms	(70-60)*1ms=10ms	(60-30)*1ms=30ms	(30-20)*1ms=10ms	(120-20)*1ms=100ms

- SCAN
  Track access sequence: 120, 90, 70, 60, 30, 20
  Total time is 280ms. Listed as below

	120	**90**	**70**	**60**	**30**	**20**
seek time	(120-100)*1ms=20ms	(200-120+200-90)*1ms=190ms	(90-70)*1ms=20ms	(70-60)*1ms=10ms	(60-30)*1ms=30ms	(30-20)*1ms=10ms

- CSCAN
  Track access sequence: 120, 20, 30, 60, 70, 90
  Total time is 190ms. Listed as below

	120	**20**	**30**	**60**	**70**	**90**
seek time	(120-100)*1ms=20ms	(200-120+20)*1ms=100ms	(30-20)*1ms=10ms	(60-30)*1ms=30ms	(70-60)*1ms=10ms	(90-70)*1ms=20ms