CSPB 3753 - Fall 2024 - Knox - Operating Systems

Started on	Monday, 7 October 2024, 7:02 PM
State	Finished
Completed on	Monday, 7 October 2024, 7:03 PM
Time taken	1 min 26 secs
Grade	**10** out of 10 (**100**%)

Question **1**

Correct

Mark 1 out of 1

What is disk seek time?

Select one:

- a. time for r/w head to find the track ✔
- b. time for scan to reach correct position
- c. time for disk to reach correct spin rate
- d. time it takes for sector to reach r/w head

Your answer is correct.

The correct answer is: time for r/w head to find the track

Question **2**

Correct

Mark 1 out of 1

What is Rotational Latency?

Select one:

- a. time it takes for sector to reach r/w head ✔
- b. time for disk to reach correct spin rate
- c. time for arm to reach correct position
- d. time for r/w head to find the track

Your answer is correct.

The correct answer is: time it takes for sector to reach r/w head

Question **3**

Correct

Mark 1 out of 1

Why is disk scheduling required?

Select one:

- a. we can improve bandwidth and access time by managing order of requests ✔
- b. we need to transfer data from whole track at a time
- c. we need to make sure the write requests are processed before read requests
- d. we must handle different transfer rates for different disks

Your answer is correct.

The correct answer is: we can improve bandwidth and access time by managing order of requests

Question **4**

Correct

Mark 1 out of 1

FCFS Disk Scheduling is easy to implement but is prone to starvation

Select one:

- True
- False ✔

The correct answer is 'False'.

Question **5**

Correct

Mark 1 out of 1

Which of these disk scheduling policies continually moves back and forth across whole disk platter?

Select one:

- a. FCFS
- b. SSTF
- c. LOOK
- d. SCAN ✔

Your answer is correct.

The correct answer is: SCAN

Question **6**

Correct

Mark 1 out of 1

An array of disks is more likely to fail compared to a single disk. How is it that RAID arrays still manage to provide more data protection compared to a single disk?

Select one:

- a. By using either mirroring or striping
- b. By using dedicated hardware
- c. By using either mirroring or parity ✔
- d. By using better quality disks

Your answer is correct.

The correct answer is: By using either mirroring or parity

Question **7**

Correct

Mark 4 out of 4

A disk has 500 cylinders and is currently on location 250 heading towards the outer (higher numbered) cylinders.

What is the total time traversed by the following algorithms for requests of 260, 350, 100, 10, 410, 10

FCFS

1240 ✔

SSTF

560 ✔

LOOK

560 ✔

C-SCAN(only include active time for the head servicing requests)

350 ✔

Your answer is correct.