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Started on Thursday, September 30, 2021, 8:32 PM

State Finished

Completed on Thursday, September 30, 2021, 8:58 PM

Time taken 25 mins 36 secs

Grade 23.00 out of 26.00 (88%)

Question **1**

Complete

0.00 points out of 1.00

Which of the following statement about device formatting is FALSE?

Select one:

- ☐ a. Not every partition contains a copy of the operating systems.
- ☐ b. Device manufacturers store the initial file-system data structures in the device.
- ☐ c. Operating system can create multiple partitions with in a single device.
- ☒ d. Volume creation is implicit when a file system is placed directly within a partition.

Question **2**

Complete

1.00 points out of 1.00

An advantage of SSDs over HDDs is

Select one:

- ☐ a. SSDs are more reliable than HDDs.
- ☒ b. SSDs are faster than HDDs.
- ☐ c. SSDs are cheaper per megabyte than HDDs.
- ☐ d. SSD have more write capability than HDD's

Question **3**

Complete

1.00 points out of 1.00

Difference between sector sparing and sector slipping is

Select one:

- ☐ a. sector sparing can help recover from hard errors while sector slipping cannot.
- ☐ b. sector slipping can help recover from hard errors while sector sparing cannot.
- ☒ c. sector sparing results in copying of a single sector while sector slipping may result in copying of multiple sectors.
- ☐ d. sector sparing uses spare sectors while sector slipping does not.

Question 4

Complete

1.00 points out of 1.00

Which of the following statements regarding solid state disks (SSDs) is false?

Select one:

- ☐ a. They have no seek time or latency.
- ☐ b. They are generally more expensive per megabyte than traditional hard disks.
- ☐ c. They have the same characteristics as magnetic hard disks, but can be more reliable.
- ☒ d. They generally consume more power than traditional hard disks.

Question 5

Complete

1.00 points out of 1.00

The SCAN scheduling algorithm ____.

Select one:

- ☐ a. services the request with the minimum seek time
- ☒ b. services the request next to the current head position in the direction of the head movement
- ☐ c. services the request next to the current head position in the opposite direction of the head movement
- ☐ d. chooses to service the request furthest from the current head position

Question 6

Complete

1.00 points out of 1.00

If a few bits in an HDD sector or NVM page are corrupted, the controller can recover the correct values using ECC only if

Select one:

- ☐ a. the bit corruption hasn't occurred in the ECC of the sector/page.
- ☐ b. the bit corruption hasn't occurred in the ECC or the header of the sector/page.
- ☐ c. the bit corruption is limited to the data portion of the sector/page.
- ☒ d. number of bits corrupted is low irrespective of where the corruption occurs in the sector/page.

Question 7

Complete

1.00 points out of 1.00

SCAN disk head scheduling offers no practical benefit over FCFS disk head scheduling.

Select one:

- ☐ a. True
- ☒ b. False

Question **8**

Complete

1.00 points out of 1.00

Solid state disks (SSDs) commonly use the FCFS disk scheduling algorithm.

Select one:

- ☒ a. True
- ☐ b. False

Question **9**

Complete

1.00 points out of 1.00

Disk controllers do not usually have a built-in cache.

Select one:

- ☐ a. True
- ☒ b. False

Question **10**

Complete

0.00 points out of 1.00

The current directory is

Select one:

- ☐ a. may be included in the search path
- ☒ b. always included in the search path
- ☐ c. none of the other answers
- ☐ d. represented by the symbol “..”

Question **11**

Complete

1.00 points out of 1.00

The garbage collection is necessary _____

Select one:

- ☐ a. in acyclic-graph directory structure only
- ☒ b. in general graph directory structure only
- ☐ c. in tree-based directory structure only
- ☐ d. in each implementation of the directory structure

Question **12**

Complete

1.00 points out of 1.00

UNIX systems consider each file to be a sequence of _____

Select one:

- ☐ a. 16 bit words
- ☐ b. 32 bit words
- ☒ c. 8-bit bytes
- ☐ d. bit words, which length is defined by the users

Question **13**

Complete

1.00 points out of 1.00

The file protection can be provided by:

Select one:

- ☐ a. knowledge of the existence and name of a file
- ☒ b. all of the other answers
- ☐ c. access-control list
- ☐ d. password

Question **14**

Complete

1.00 points out of 1.00

Manipulating files through memory rather than using the read() and write() system calls _____

Select one:

- ☐ a. complicates, but retards file access and usage
- ☐ b. is not recommended for single-processor operating systems
- ☒ c. simplifies and speeds up file access and usage
- ☐ d. simplifies, but retards file access and usage

Question **15**

Complete

1.00 points out of 1.00

moving the file pointer to a specified position _____ best describes the action of seek.

Question **16**

Complete

1.00 points out of 1.00

File's _____ is a unique tag identifies the file within the file system.

Select one:

- ☐ a. name
- ☐ b. type
- ☐ c. location
- ☒ d. identifier

Question **17**

Complete

0.00 points out of 1.00

Is an extension a part of a file name?

Select one:

- ☒ a. False
- ☐ b. True

Question **18**

Complete

1.00 points out of 1.00

Reading and writing a file operations use the same current-file-position pointer.

Select one:

- ☐ a. False
- ☒ b. True

Question **19**

Complete

1.00 points out of 1.00

13. Systems that do not permit access to the files of another user do not need protection

Select one:

- ☐ a. False
- ☒ b. True

Question **20**

Complete

1.00 points out of 1.00

In two-level directory structure, the system's master file directory (MFD) is searched when a user logs in.

Select one:

- ☐ a. False
- ☒ b. True

Question **21**

Complete

1.00 points out of 1.00

FCFS scheduling is generally used in NVMs, because

Select one:

- ☐ a. it provides much higher raw throughput compared to HDDs.
- ☐ b. the write performance depends on how "worn" the media is.
- ☒ c. NVMs do not contain moving disk heads.
- ☐ d. write service time is not uniform in NVMs.

Question **22**

Complete

1.00 points out of 1.00

Low-level formatting ____.

Select one:

- ☐ a. does not usually provide an error-correcting code
- ☐ b. is different from physical formatting
- ☐ c. is usually performed by the purchaser of the disk device
- ☒ d. divides a disk into sections that the disk controller can read and write

Question **23**

Complete

1.00 points out of 1.00

Host-attached storage is ____.

Select one:

- ☒ a. accessed via local I/O ports
- ☐ b. a special purpose storage system that is accessed remotely over a data network
- ☐ c. not suitable for hard disks
- ☐ d. not suitable for use in raid arrays

Question **24**

Complete

1.00 points out of 1.00

Indexed sequential-access method allows to locate any record with no more than two direct-access reads:

Select one:

- ☒ True
- ☐ False

Question **25**

Complete

1.00 points out of 1.00

The directory structure is creation of the file system design and not prescribed.

Select one:

- ☒ True
- ☐ False

Question **26**

Complete

1.00 points out of 1.00

Sharing of memory-mapped sections of memory among multiple processes can be efficiently realized without the usage of virtual memory:

Select one:

☐ True

☒ False

◀ [CSC415 - Chapter 13.05 - File System Interface - Memory Mapped Files \(not on slides or video\)](#)

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🔗 [Special Video - Magic Numbers \(6:17\)](#) ▶



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