

### Bate Ex. 3 OS

1. Which of the following allocation methods ensures that only one access is needed to get a disk block using direct access?
  - a. Contiguous allocation
2. Which of the following statements regarding the WAFL file system is incorrect?
  - a. It provides little replication.
3. Which of the following statements regarding the client-server model is true?
  - a. A remote file system may be mounted.
4. \_\_\_\_\_ includes all of the file system structure, minus the actual contents of files.
  - a. Metadata
5. A \_\_\_\_\_ is a view of a file system before the last update took place.
  - a. Snapshot
6. Page caching \_\_\_\_\_
  - a. Uses virtual memory techniques to cache file data as pages as opposed to system-oriented blocks.
7. The SSTF scheduling algorithm \_\_\_\_\_
  - a. Services the request with the minimum seek time
8. On UNIX systems, the data structure for maintaining information about a file is a \_\_\_\_\_.
  - a. Inode
9. A volume control block \_\_\_\_\_
  - a. Contains information such as the number of blocks in a partition, size of the blocks, and free-block and FCB count and pointers
10. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow owner execute access to file1.txt
  - b. Use lowercase and decimal (octal) notation in you answer
  - c. Answer: `chmod 100 file1.txt`
11. Write the required command to create a hard link of file1.txt named file2.txt.
  - a. Use lowercase on your answer
  - b. Answer: `ln file1.txt file2.txt` (Not part of answer is a Note: it's a lowercase L in ln)
12. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow public read access to file1.txt
  - b. Use lowercase and decimal (octal) notation in you answer
  - c. Answer: `chmod 004 file1.txt`
13. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow public read/execute access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer: `chmod 005 file1.txt`
14. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow owner read/write access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer: `chmod 600 file1.txt`
15. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow owner read, write and execute access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer

- c. Answer:chmod 700 file1.txt
- 16. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow group write access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer:chmod 020 file1.txt
- 17. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow owner write/execute access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer:chmod 300 file1.txt
- 18. NFS views a set of interconnected workstations as a set of \_\_\_\_
  - a. Independent machines with independent file systems
- 19. The NSF mount protocol \_\_\_\_
  - a. Establishes the initial logical connection between a server and a client
- 20. An acyclic-graph directory structure \_\_\_\_
  - a. Allows the sharing of subdirectories and files
- 21. \_\_\_\_ is a secure, distributed naming mechanism
  - a. Lightweight directory-access protocol (LDAP)
- 22. Which of the following is the simplest method for implementing a directory?
  - a. Linear list
- 23. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow group execute access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer:chmod 010 file1.txt
- 24. Write the required command to create a symbolic link of file1.txt named file2.txt
  - a. Use a lowercase on your answer
  - b. Answer:ln -s file1.txt file2.txt
- 25. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow group read/write access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer:chmod 060 file1.txt
- 26. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow group read, write and execute access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer:chmod 070 file1.txt
- 27. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow owner read access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer:chmod 400 file1.txt
- 28. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow all users write access to file1.txt
  - b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer:chmod 222 file1.txt
- 29. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow public write/execute access to file1.txt

- b. Use lowercased and decimal(octal) notation in you answer
  - c. Answer:chmod 003 file1.txt
- 30. The \_\_\_\_ file is a series of code sections that the loader can bring into memory and execute
  - a. Executable
- 31. How many disk accesses are necessary for direct access to byte 20680 using linked allocation and assuming each disk block is 4KB in size?
  - a. 6
- 32. The \_\_\_\_ file is a sequence of bytes organized into blocks understandable by the system's linker.
  - a. Object
- 33. Consider a system crash on a log-structured file system. Which one of the following events must occur?
  - a. All transactions in the log must be completed
- 34. Transfers between memory and disk are performed a \_\_\_\_
  - a. Block at a time
- 35. Order the following file system layers in order of lowest level to highest level: I/O control, logical file system, basic file system, file-organization module, devices
  - a. 5, 1, 3, 4, 2
- 36. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow group read access to file1.txt
  - b. Use lowercase and decimal (octal) notation in you answer
  - c. Answer:chmod 040 file1.txt
- 37. Write the command used to restrict access to file1.txt as follows:
  - a. Only allow all users read/execute access to file1.txt
  - b. Use lowercase and decimal (octal) notation in you answer
  - c. Answer:chmod 555 file1.txt

Resources:

chmod calculator: <https://chmod-calculator.com>

Problems: <https://github.com/Mercrist/OS-Labs/tree/main/Old%20Problems/Exam3>