

## Unit OS8: File System

### 8.6. Quiz

Windows Operating System Internals - by David A. Solomon and Mark E. Russinovich with Andreas Polze

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## Windows File System

Efficiency and Stability of a file system are contradicting requirements. How can the Windows file system (NTFS) be characterized?

- a) Lazy write-file system
- b) Careful write-file system
- c) Recoverable (Journaling)-file system
- d) Flat (Non-hierarchical)-file system

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## NTFS Recovery

An atomic transaction is an operation that:

- a) Can be fully undone if it fails in progress
- b) Can be partially undone if it fails in progress
- c) Cannot be undone if it fails in progress
- d) Crashes the computer if it fails

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## NTFS Functionality

Which functionality is not (!) provided by NTFS?

- a) Compression
- b) Encryption
- c) Multiple data streams
- d) Versioning

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## Physical Storage

A cluster consists of how many sectors?

- a) 1
- b) 2
- c) 8
- d) It depends

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## File System Formats

Which of the following is NOT a file system format supported by Windows?

- a) FAT16
- b) FAT64
- c) NTFS
- d) UDF

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## File System Characteristics

Which of the following file systems implement security?

- a) UDF
- b) FAT32
- c) NTFS
- d) Both a) and c)

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## FAT File System

Which is NOT an advantage of FAT32 over the FAT 16 file system?

- a) Root directory is not a fixed size
- b) Root directory is not in a fixed place
- c) Root directory is mirrored
- d) Supports files up to 32GB in size

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## Optical Storage

Why is UDF better than CDFS?

- a) UDF is faster
- b) UDF supports longer file names and paths
- c) UDF is more tolerant against disk corruption
- d) CDFS does not support CD-RW

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## NTFS Data Storage

An NTFS main data default stream is also known as:

- a) Unnamed stream
- b) Main stream
- c) System stream
- d) Alternate stream

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## NTFS Characteristics

Junctions are a form of:

- a) Hard link
- b) Symbolic link
- c) Compression
- d) Encryption

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## NTFS Quota

NTFS per-user quotas are enforced on what level?

- a) File
- b) Volume
- c) System
- d) Domain

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## Additional NTFS Features

EFS stands for:

- a) Enterprise File System
- b) Encryption Format Standard
- c) Encrypting File System
- d) Encrypted Function Stream

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## POSIX Support

POSIX-style names differ from Windows-API names in that:

- a) POSIX names are case-insensitive
- b) POSIX names are limited to 128 characters
- c) POSIX names are case-sensitive
- d) Both b) and c)

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## File System Drivers

If no file system claims a volume during mount process, which driver claims it?

- a) Raw
- b) Cooked
- c) Unrecognized
- d) Mountall

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## Distributed File System Operation

Which driver sends network drive letter accesses to the remote file server?

- a) LANMan Server
- b) LANMan Client
- c) LANMan Redirector
- d) LANMan Remote

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## Server Message Block Protocol

CIFS stands for:

- a) Common Interoperable File System
- b) Common Internet File System
- c) Core I/O File Server
- d) Nothing

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## Filter Drivers

A file system filter driver intercepts I/O by:

- a) Replacing file system driver
- b) Attaching above file system drivers
- c) Patching file system driver functions
- d) Attaching below a file system driver

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## Caching

The NTFS file system caches only file data, not the metadata.

- a) True
- b) False

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## Fast I/O

Fast I/O saves:

- a) Disk I/O
- b) CPU time
- c) Disk space
- d) Memory

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## File I/O

Which file open flag improves sequential read access?

- a) `FILE_FLAG_SEQUENTIAL`
- b) `FILE_FLAG_RANDOM_ACCESS`
- c) `FILE_FLAG_NO_BUFFERING`
- d) All of the above

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