Started on	Monday, 27 October 2025, 11:56 AM
State	Finished
Completed on	Monday, 27 October 2025, 12:01 PM
Time taken	4 mins 35 secs
Marks	7.00/10.00
Grade	**70.00** out of 100.00

Question 1

Complete

Mark 1.00 out of 1.00

During an NFS mount operation, in what sequence do the major services participate?

- a. Client → nfsd → rpcbind → mountd
- b. Client → nfsd → lockd → rpcbind
- c. mountd → rpcbind → client → nfsd
- d. Client → rpcbind → mountd → nfsd

Question 2

Complete

Mark 1.00 out of 1.00

In the NFS data flow, which kernel component intercepts system calls like read() and write() and decides whether to route them to the local or NFS client module?

- a. VFS (Virtual File System)
- b. mountd
- c. exportfs
- d. rpcbind

Question 3

Complete

Mark 0.00 out of 1.00

In the NFS export configuration /data 192.168.1.0/24(rw,sync,no_root_squash), what does the sync option ensure?

- a. The client caches writes locally for speed.
- b. The server uses asynchronous I/O for higher throughput.
- c. Data is compressed before network transfer.
- d. The server acknowledges writes only after committing them to disk.

Question 4

Complete

Mark 1.00 out of 1.00

What happens inside the client kernel after an application executes a command like cat /mnt/data/file.txt (NFS mount)?

- a. The system call is handled by rpcbind.
- b. The syscall passes through VFS, which delegates to NFS client module, which then sends an RPC READ request to the server.
- c. The command is executed via mountd on the client.
- d. The system call triggers direct socket communication with the storage device.

Question 5

Complete

Mark 0.00 out of 1.00

What is the main purpose of the exportfs command on an NFS server?

- a. To encrypt exported data for clients.
- b. To register exported directories with the Linux kernel only.
- c. To read /etc/exports and inform mountd about directories available for sharing.
- d. To initiate NFSv4 stateful sessions.

Question 6

Complete

Mark 1.00 out of 1.00

What is the role of rpcbind in the NFS architecture?

- a. Maps RPC program numbers to dynamically assigned ports for RPC services.
- b. Validates user credentials for secure mounts.
- c. Performs kernel-level disk scheduling.
- d. Handles file read/write requests from clients.

Question 7

Complete

Mark 1.00 out of 1.00

Which of the following best describes the role of the NFS client in the overall architecture?

- a. It maintains the export table for shared resources.
- b. It translates local file I/O calls into RPCs for remote file operations.
- c. It provides access control for exported directories.
- d. It runs the nfsd daemon to handle requests.

Question 8

Complete

Mark 1.00 out of 1.00

Which of the following describes how the NFS server handles a client's read request?

- a. The server's kernel module (nfsd) executes an RPC handler that performs the actual file read operation.
- b. rpcbind opens the file and transfers data directly to the network.
- c. The server uses mountd to open the file and sends it to the client.
- d. The NFS client performs the read and sends a confirmation to the server.

Question 9

Complete

Mark 1.00 out of 1.00

Which of the following statements correctly differentiates NFSv4 from NFSv3 in terms of architecture and communication?

- a. NFSv4 uses UDP exclusively for performance reasons.
- b. NFSv4 still depends on external lockd for file locking.
- c. NFSv4 is stateless, unlike NFSv3.
- d. NFSv4 eliminates the need for separate daemons like mountd and rpcbind by consolidating services on TCP port 2049.

Question 10

Complete

Mark 0.00 out of 1.00

Which statement accurately describes the function of mountd in NFSv3?

- a. It mounts NFS directories on client systems.
- b. It authorizes client mount requests and maintains the export list.
- c. It replaces rpcbind for service discovery.
- d. It implements file locking for concurrent users.