

Chapter 2 — Installing Windows Server 2008

TRUE/FALSE

1. The first step in planning the installation of any operating system is to determine the hardware requirements.

ANS: T PTS: 1 REF: 42

2. A disk cannot be formatted after it is partitioned.

ANS: F PTS: 1 REF: 44

3. Journaling enhances both the security and reliability of a system.

ANS: T PTS: 1 REF: 48

4. Partition and volume are interchangeable terms.

ANS: F PTS: 1 REF: 48

5. Active Directory Lightweight Directory Services (AD LDS) is intended for servers that primarily manage applications for users.

ANS: T PTS: 1 REF: 53

MULTIPLE CHOICE

1. The most up-to-date listing of compatible hardware (and software) is the Windows Server Catalog of ____.

a. Labeled Products	c. Compatible Products
b. Tested Products	d. Approved Products

ANS: B PTS: 1 REF: 43

2. ____ is a process in which a hard disk section or a complete hard disk is prepared for use by an operating system.

a. Creating a partition	c. Disk compression
b. Mounting a disk	d. Segmenting a disk

ANS: A PTS: 1 REF: 44

3. When you format a disk, this process divides the disk into small sections called tracks and ____ for the storage of files by a particular file system.

a. blocks	c. partitions
b. sections	d. sectors

ANS: D PTS: 1 REF: 44

4. NTFS follows the ____ standard, which includes case-sensitive filenames and the use of multiple filenames.

a. SYSV	c. Windows
b. POSIX.1	d. POSTIX

ANS: B PTS: 1 REF: 48

5. ____ by a file system means that it tracks changes to files and keeps a record of these changes in a separate log file.
- a. Auditing
 - b. Versioning
 - c. Snapshot tracking
 - d. Journaling

ANS: D PTS: 1 REF: 48

6. A ____ enables you to create one file and then establish links to that file in other folders, as though the file is in all of the folders.
- a. soft link
 - b. shortcut link
 - c. hard link
 - d. permanent link

ANS: C PTS: 1 REF: 48

7. Prior to Windows Server 2008, a damaged disk area meant that you had to take down the server and then bring it back up offline to users to run the ____ utility that rebuilt the data in the damaged area.
- a. chkdsk
 - b. repair disk
 - c. dskutil
 - d. wdsutil

ANS: A PTS: 1 REF: 48

8. ____ is an interim version of Windows Server 2003 developed as a way to offer a newer server version while waiting for Windows Server 2008.
- a. SP3
 - b. SP2
 - c. R1
 - d. R2

ANS: D PTS: 1 REF: 49

9. One ____ is a license for one workstation to access the server.
- a. EAL
 - b. CAL
 - c. WAL
 - d. PPL

ANS: B PTS: 1 REF: 50

10. When installing Windows Server 2008, you can specify a domain or workgroup on the ____ window that is displayed when the computer reboots after the actual installation process is completed.
- a. Initial Configuration Tasks
 - b. BIOS
 - c. Setup Tasks
 - d. Management Options

ANS: A PTS: 1 REF: 50

11. A ____ is a set of unique identification information that is typically put at the end of a file, or that is associated with a computer communication.
- a. public key
 - b. digital signature
 - c. hash
 - d. digital certificate

ANS: D PTS: 1 REF: 52

12. The ____ role is central to implementing Active Directory and creating one or more domains.
- a. Active Directory Certificate Services
 - b. Active Directory Management Services
 - c. Active Directory Domain Services
 - d. Active Directory Listing Services

ANS: C PTS: 1 REF: 52

13. ____ are directories on one or more computers that users on other computers can access through the network.
- a. Shared directories
 - b. Merged directories
 - c. Quorum directories
 - d. Catalog directories

ANS: A PTS: 1 REF: 53

14. ____ enables folders shared from multiple computers to appear as though they exist in one centralized hierarchy of folders instead of on many different computers.
- a. CFS
 - b. DFS
 - c. HFS
 - d. RFS

ANS: B PTS: 1 REF: 54

15. ____ is a TCP/IP application protocol that transfers files in bulk data streams and is commonly used on the Internet.
- a. SMTP
 - b. SMB
 - c. CIFS
 - d. FTP

ANS: D PTS: 1 REF: 56

16. ____ is a protocol in the TCP/IP suite of protocols that is used to transport document and other data transmissions over networks and the Internet for access by Web browsers.
- a. SMTP
 - b. FTP
 - c. HTTP
 - d. ICMP

ANS: C PTS: 1 REF: 56

17. The ____ role is designed to enable the installation of Windows operating systems—Windows Vista, Windows 7, and Windows Server 2008—on multiple computers.
- a. WDS
 - b. ODS
 - c. DHCP
 - d. WDT

ANS: A PTS: 1 REF: 61

18. In the Initial Configuration Tasks window, you use the ____ section to set the time zone, configure networking, and provide computer name and domain or workgroup information.
- a. Initialize This Server
 - b. Provide Computer Information
 - c. Customize This Server
 - d. Setup This Server

ANS: B PTS: 1 REF: 64

19. To install the Active Directory Lightweight Directory Services role, enter: ____.
- a. `start /w ocsetup DirectoryServices-ADAM-ServerCore`
 - b. `start /w ocsetup LDDS-Install`
 - c. `start /w ocsetup Directory-Server-Core-Role`
 - d. `start /w ocsetup All Services`

ANS: A PTS: 1 REF: 74

20. In Windows Server Core at the command line, enter ____ to view a listing of commands.
- a. `enum`
 - b. `all`
 - c. `list`
 - d. `help`

ANS: D PTS: 1 REF: 75

21. ____ are designed to correct things such as security issues as well as problems affecting stability, performance, or the operation of features included with the operating system.
- a. Service updates
 - b. Hotfixes
 - c. Service packs
 - d. Service upgrades

ANS: C PTS: 1 REF: 75

COMPLETION

1. Exceeding the minimum hardware requirements makes your server more _____ and able to meet increased requirements as the organization grows.

ANS: scalable

PTS: 1 REF: 42

2. _____ is a set of standards designed to enable portability of applications from one computer system to another and has been used particularly for UNIX and Linux systems.

ANS:
Portable operating system interface (POSIX)
Portable operating system interface
POSIX

PTS: 1 REF: 48

3. The server _____ is the reason for having a server.

ANS: role

PTS: 1 REF: 52

4. The _____ role is used to enable client computers to run services and software applications on the server instead of on the client.

ANS: Terminal Services

PTS: 1 REF: 55

5. Windows Deployment Services operate in a(n) _____.

ANS:
Preboot Execution Environment (PXE)
Preboot Execution Environment
PXE

PTS: 1 REF: 69

MATCHING

Match each term with the correct statement below.

- | | |
|---------------------|---------------------|
| a. NTFS | f. file compression |
| b. disk quota | g. volume |
| c. service pack | h. indexing |
| d. RAID | i. BIOS |
| e. Indexing Service | |

1. An array of multiple hard drives designed to extend the life of disk drives and to prevent data loss from a hard disk failure
2. A program on a read-only or flash memory chip that establishes basic communication with components such as the monitor and disk drives
3. The native Windows Server file system
4. A process that significantly reduces the size of a file by techniques such as removing unused space within a file or using compression algorithms
5. Allows an administrator to monitor disk space being consumed by users on the network and to control the amount of disk space being consumed on a per-user or per-group basis
6. Used in conjunction with Active Directory to make file searching and retrieval faster
7. Creates a catalog of information about documents accessed through the Search option from Windows Explorer
8. A portion of a storage area, such as a hard disk, that has been set up for one file system
9. A major update for a Windows operating system which can include many updated and enhanced components and functions

- | | | |
|-----------|--------|---------|
| 1. ANS: D | PTS: 1 | REF: 43 |
| 2. ANS: I | PTS: 1 | REF: 43 |
| 3. ANS: A | PTS: 1 | REF: 47 |
| 4. ANS: F | PTS: 1 | REF: 47 |
| 5. ANS: B | PTS: 1 | REF: 47 |
| 6. ANS: H | PTS: 1 | REF: 47 |
| 7. ANS: E | PTS: 1 | REF: 47 |
| 8. ANS: G | PTS: 1 | REF: 48 |
| 9. ANS: C | PTS: 1 | REF: 49 |

SHORT ANSWER

1. List three preinstallation tasks that should be completed before installing any edition of Windows Server 2008.

ANS:

Identify the hardware requirements and check hardware compatibility.

Determine disk partitioning options.

Understand the file system.

Determine upgrade options.

Plan user licensing.

Determine domain or workgroup membership.

Choose a computer name.

Determine whether to install Server Core or the full version.

Identify the server roles to implement.

Determine the immediate preparations.

PTS: 1

REF: 42

2. Discuss what you might want to consider when setting hardware requirements for the CPU of servers for a network and provide an example.

ANS:

When you develop the specifications for the server hardware you are planning to use, it is better to overestimate than to underestimate. In nearly all cases, this means purchasing much more computer than specified in the minimum requirements. In terms of speed, plan to pay particular attention to the speed of the CPU and the amount of RAM. For example, a small business using one server with Standard Edition should consider purchasing a 2 GHz or faster x64 processor. The cost of an x64 processor is not much more than that of an x86 processor. An x64 processor gives the small business room to grow in the future.

A corporation or university that has large databases might consider running the Datacenter Edition on an SMP x64 computer with fast processors. The number of processors depends on the size of the databases and the frequency of performing large queries and reports. The corporation or university might start with two processors, but with the option built into the computer to easily add more in the future.

PTS: 1

REF: 43

3. Explain why the use of hard links can be beneficial to an organization.

ANS:

A hard link enables you to create one file and then establish links to that file in other folders, as though the file is in all of the folders. For example, an organization might have a document about its rules and regulations for employees. There might be a master copy in a Human Resources Department folder. Links to the master copy are placed in folders for each department in the organization, so that employees from all departments can read the rules and regulations. The advantage of this approach is that when changes are made to the rules and regulations, they only need to be made to the master copy.

PTS: 1

REF: 48

4. Explain what self-healing means in connection to Windows Server 2008.

ANS:

Self-healing disks is a new feature to NTFS introduced in Windows Server 2008. Self-healing means that when software in Windows Server 2008 runs into a damaged disk area, NTFS can heal the area without having to take down the server. NTFS self-heals by generating a “worker thread” that repairs data from the damaged area. The data is not available to the software until the worker thread completes its work. The next time the software wants to access that data, it is available for use.

PTS: 1

REF: 48

5. List two of Microsoft’s recommendations for creating a computer name.

ANS:

The maximum length is 63 characters, but if Windows NT computers are on the network, the Windows NT computers will only recognize the first 15 characters.

Use shorter names up to 15 characters for easier typing.

The computer should have a name that is different from any other computer name on the local network or in the domain.

If no DNS server exists on the network, use only standard Internet characters, which include upper- and lowercase letters, numbers, and the hyphen (-) character, but do not use only numbers.

If a DNS server is present on the network, use standard Internet characters plus additional characters such as \$, %, &, *, and others.

PTS: 1 REF: 51

6. List and describe the purpose of two Active Directory Certificate Services.

ANS:

Certification Authority Web Enrollment - Enables requesting digital certificates for Web communications, sets up smart card digital certificates, and can obtain lists of revoked certifications

Certification Authority - Used to set up the use of digital certificates for user accounts and computers

Microsoft Simple Certificate Enrollment Protocol - Enables routers and network devices to access digital certificates

Online Certificate Status Protocol (OCSP) - Enables detection of a revoked certificate without the need to access a revocation list

PTS: 1 REF: 52

7. List three advantages of using the Hyper-V role.

ANS:

Lowers server costs by consolidating operating systems on less hardware

Provides the ability to have separate program development and test environments on the same hardware as production environments

Increases disaster recovery options

Enables network load balancing

Supports Linux integration

PTS: 1 REF: 55

8. What solution steps should you take when troubleshooting a system where setup did not find any mass storage devices on the computer?

ANS:

The most common cause is that Setup does not have a driver for a SCSI device or is detecting storage devices in the wrong order, such as the CD/DVD drive first. Press F6 or click the Load Driver link in the Where do you want to install Windows window, and provide a driver for the mass storage device that will hold the operating system files.

Check to make sure all adapters and controllers are working properly. Check power to all devices. Reseat adapters and controllers.

For SCSI devices: (1) Ensure the SCSI cabling is properly installed, (2) check that SCSI devices are terminated, (3) ensure SCSI devices are correctly addressed, and (4) verify the BIOS correctly recognizes all SCSI adapters. Also, be sure the SCSI boot drive is addressed as 0. Check the manufacturer's recommendations for configuring SCSI adapters and hard disk drives. Try replacing the adapter before replacing the drive(s).

For EIDE/SATA/ATA drives: (1) Check the controller, (2) ensure file I/O and disk access are set to standard, and (3) ensure the system drive is the first device recognized by the controller.

For IDE and ESDI drives: (1) Check the cabling and controller, (2) check the drive setup in the BIOS for master/slave relationships, and (3) ensure the drive is properly recognized in the BIOS.

PTS: 1 REF: 76

9. What solutions steps should you take when troubleshooting a system that will not connect to a network?

ANS:

Use the Initial Configuration Tasks window to ensure that networking is correctly configured. Check the network interface card to be certain it is working. Reseat or replace the card, if necessary. Use the diagnostic software provided with the card to test for problems. If this does not work, try a card from a different manufacturer, in case there is a hardware incompatibility.

PTS: 1 REF: 76

10. Explain how to uninstall Windows Server 2008.

ANS:

Uninstalling Windows Server 2008 is a relatively straightforward process and requires you to format the partition on which it has been installed.

If you are installing another operating system, you are usually given an opportunity to format the hard drive for that operating system. Format the drive and install the other operating system. You can also use the FDISK and FORMAT utilities on a startup disk from an older Windows operating system to delete and format the partition. Another option is to use the DISKPART utility. Once the partition has been formatted, you can install a new operating system.

PTS: 1 REF: 77