Chapter 02: Linux Installation and Usage

TRUE/FALSE

1. It is important to ensure that a computer meets the maximum hardware requirements before performing an installation.

   ANS: F   PTS: 1   REF: 42

2. System Rescue can be used to repair a Linux system that cannot be started.

   ANS: T   PTS: 1   REF: 45

3. A swap partition contains a filesystem.

   ANS: F   PTS: 1   REF: 52

4. When a user interacts with his computer, he interacts directly with the kernel of the computer's operating system.

   ANS: F   PTS: 1   REF: 62

5. Commands indicate the name of a program to execute and are case sensitive.

   ANS: T   PTS: 1   REF: 65

MODIFIED TRUE/FALSE

1. In Linux, the administrator account is called <u>top</u>. _____

   ANS: F, root

   PTS: 1   REF: 50

2. Linux requires a minimum of <u>three</u> partitions to be created. _____

   ANS: F, two

   PTS: 1   REF: 52

3. The swap partition for Linux 2.4 kernels should be at least <u>half</u> the size of the physical RAM. _____

   ANS: F
   twice
   two times

   PTS: 1   REF: 52

4. The program that is started by the BIOS at system startup, and that loads the Linux kernel into memory from a hard disk partition inside the computer is called the <u>boot loader</u>. _____

ANS: T   PTS: 1   REF: 56

5. The command <u>shutdown -h +30</u> would halt your system in 30 minutes.
    _____

    ANS: T   PTS: 1   REF: 73

MULTIPLE CHOICE

1. Because you need to document so many pieces of hardware and software information, you should
    create a _____ that contains all important installation information as well as hardware information.
    a. preinstallation checklist   c. software components list
    b. hardware compatibility checklist   d. minimum hardware requirements list

    ANS: A   PTS: 1   REF: 43

2. _____ is the most common method of installing Linux.
    a. Installation from a DVD
    b. Installation from an NFS server across the network
    c. Installation from packages located on the hard disk
    d. Installation from CD-ROM media

    ANS: A   PTS: 1   REF: 44

3. During Linux installation, you need to configure a minimum of _____ user account(s).
    a. one   c. three
    b. two   d. four

    ANS: B   PTS: 1   REF: 50

4. Hard disks can contain a maximum of _____ major partitions
    a. 4   c. 16
    b. 8   d. 32

    ANS: A   PTS: 1   REF: 51

5. The recommended size for the /home directory is _____ per user.
    a. 100 MB   c. 500 MB
    b. 200 MB   d. 1000 MB

    ANS: B   PTS: 1   REF: 53

6. The _____ filesystem is compatible with the Windows FAT filesystem.
    a. ext3   c. ext2
    b. REISER   d. VFAT

    ANS: D   PTS: 1   REF: 53

7. The _____ directory contains system commands and utilities.
    a. /opt   c. /boot
    b. /var   d. /usr

    ANS: D   PTS: 1   REF: 53

8. In Linux, a(n) _____ is used to accept input from the user and pass the input to the kernel for processing.
   a. processor
   b. user interface
   c. swap memory
   d. shell

   ANS: D   PTS: 1   REF: 62

9. The shell that is used by default in Linux is the _____ shell.
   a. BASH
   b. root
   c. gdm
   d. command line

   ANS: A   PTS: 1   REF: 62

10. _____ are specific letters that start with a dash ("-").
    a. Arguments
    b. Options
    c. Keywords
    d. Metacharacters

    ANS: B   PTS: 1   REF: 65

11. Which Linux command displays your login name?
    a. who
    b. whoami
    c. id
    d. w

    ANS: B   PTS: 1   REF: 66

12. Which Linux command gets you out of your current shell?
    a. exit
    b. stop
    c. reset
    d. clear

    ANS: A   PTS: 1   REF: 66

13. The command that displays the calendar for the current month is _____.
    a. date
    b. cal
    c. w
    d. id

    ANS: B   PTS: 1   REF: 66

14. The _____ metacharacter indicates background command execution.
    a. @
    b. ^
    c. &
    d. !

    ANS: C   PTS: 1   REF: 67

15. _____ is the metacharacter for command termination.
    a. \
    b. &
    c. ;
    d. |

    ANS: C   PTS: 1   REF: 67

16. To find all of the commands that have the word "list" in their name or description, you would type _____.
    a. man -j list
    b. man -k list
    c. man -l list
    d. man -m list

    ANS: B   PTS: 1   REF: 70

YES/NO

1. Does SYSLINUX, the Linux installation program, have a full range of hardware support?

   ANS: N   PTS: 1   REF: 45

2. Is checking the media for errors an optional step in a DVD Linux installation?

   ANS: Y   PTS: 1   REF: 45-46

3. Can you have more than four SCSI hard disks within a system?

   ANS: Y   PTS: 1   REF: 51

4. Is the password database used for authentication always located on the local computer?

   ANS: N   PTS: 1   REF: 59

5. Do all commands have either man pages or info pages?

   ANS: N   PTS: 1   REF: 72

COMPLETION

1. Another name for virtual memory is _____ memory.

   ANS: swap

   PTS: 1   REF: 52

2. _____ divides a hard disk into adjacent sections, each of which can contain a separate filesystem used to store data.

   ANS: Partitioning

   PTS: 1   REF: 52

3. A(n) _____ specifies the parameters that tailor a command to your particular needs.

   ANS: argument

   PTS: 1   REF: 65

4. To print the current date and time, type the command _____.

   ANS: date

   PTS: 1   REF: 66

5. In Linux, the command _____ displays currently logged-in users.

   ANS: who

PTS: 1   REF: 66

MATCHING

Match each correct item with the statement below.
a. boot loader   f. Network Information Service (NIS)
b. dual booting   g. options
c. ext3   h. arguments
d. ext2   i. `poweroff`
e. terminal

1. Filesystem that performs journaling
2. Shares password databases among Linux systems
3. Program started by the BIOS that loads the Linux kernel into memory from a hard disk partition inside the computer
4. Command that halts the system immediately and powers down the computer
5. Allows you to choose the operating system to boot upon system startup
6. Specify a commands' working parameters
7. Channel that allows a user to log in
8. Alter the way a command works
9. Traditional filesystem still used on most Linux computers

1. ANS: C   PTS: 1   REF: 53
2. ANS: F   PTS: 1   REF: 59
3. ANS: A   PTS: 1   REF: 56
4. ANS: I   PTS: 1   REF: 73
5. ANS: B   PTS: 1   REF: 56
6. ANS: H   PTS: 1   REF: 65
7. ANS: E   PTS: 1   REF: 62
8. ANS: G   PTS: 1   REF: 65
9. ANS: D   PTS: 1   REF: 53

SHORT ANSWER

1. What is virtual memory?

   ANS:
   Virtual memory consists of an area on the hard disk that, when the physical memory (RAM) is being used excessively, can be used to store information that would normally reside in the physical memory.When programs are executed that require a great deal of resources on the computer, information is continuously swapped from the physical memory to the virtual memory on the hard disk, and vice versa.

   PTS: 1   REF: 52

2. What is journaling? What is the advantage of journaling?

   ANS:

A journaling filesystem keeps track of the information written to the hard disk in a journal. If you copy a file on the hard disk from one directory to another, that file must pass into physical memory and then be written to the new location on the hard disk. If the power to the computer is turned off during this process, information might not be transmitted as expected and data might be lost or corrupted. With a journaling filesystem, each step required to copy the file to the new location is first written to a journal; this means the system can retrace the steps the system took prior to a power outage and complete the file copy.

PTS: 1   REF: 53

3. In Linux, what does the term terminal refer to? Why is a terminal necessary?

    ANS:
    A terminal is the channel that allows a certain user to log in to a Linux kernel, and there can be many terminals in Linux that allow you to log in to the computer locally or across a network. After a user logs in to a terminal, she receives a user interface called a shell, which then accepts input from the user and passes this input to the kernel for processing.

    PTS: 1   REF: 62

4. In Linux, what is a metacharacter? What is the significance of the $ sign?

    ANS:
    A metacharacter is a keyboard characters that has a special meaning.   One of the most commonly used metacharacters is the $ character, which tells the shell that the following text refers to a variable.   A variable is simply a piece of information that is stored in memory; variable names are typically uppercase words and most variables are set by the Linux system automatically when you log in.

    PTS: 1   REF: 67

5. What are man pages? What are info pages? What is the relationship between them?

    ANS:
    The most common form of documentation for Linux commands is manual pages (commonly referred to as man pages). Simply type the `man` command followed by a command name, and extensive information about that Linux command is displayed page-by-page on the terminal screen. This information includes a description of the command and its syntax as well as available options, related files, and commands.

    Another utility, originally intended to replace the man command in Linux, is the GNU info pages. You can access this utility by typing the `info` command followed by the name of the command in question. The info command returns an easy-to-read description of each command and also contains links to other information pages (called hyperlinks). Today however, both the info pages and the manual pages are used to find documentation because manual pages have been utilized in Linux since its conception and for over two decades in the UNIX operating system.

    PTS: 1   REF: 68 | 71