

Linux Essentials Certificate Exam - version 1.6

LPI 010-160

Version Demo

Total Demo Questions: 13

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QUESTION NO: 1

Which statements about the `apt` command on Debian-based Linux distributions are correct? (Choose two.)

- A. `apt update` refreshes package information from repositories.
- B. `apt install package-name` installs a package.
- C. `apt update` removes all obsolete packages.
- D. `apt` manages only manually downloaded RPM files.
- E. `apt install` can only install software already present in `/tmp`.

ANSWER: A B

Explanation:

The command `apt update` downloads current package information from the configured package repositories. It refreshes the local package index but does not itself install available package upgrades.

The command `apt install package-name` installs the named package and, when necessary, its required dependencies from configured repositories. Administrative privileges are normally required for changing installed software, so these commands are often run through `sudo`. Debian documents the APT command-line interface in its [apt\(8\) manual page](#).

QUESTION NO: 2

Which command displays all lines containing the text `failed` in the file `service.log`?

- A. `find failed service.log`
- B. `grep failed service.log`
- C. `cat failed service.log`
- D. `search service.log failed`
- E. `less -f failed service.log`

ANSWER: B

Explanation:

The command `grep failed service.log` searches `service.log` for lines that match the pattern `failed` and writes matching lines to standard output. By default, `grep` performs a case-sensitive search, so it matches lowercase `failed` exactly.

The `-i` option can be added for a case-insensitive search, but it is not required by the question. See the [GNU grep manual](#).

QUESTION NO: 3

Which of the following statements regarding Linux hardware drivers is correct?

- A. Drivers are regular Linux programs which have to be run by the user who wants to use a device.
- B. Drivers are not used by Linux because the BIOS handles all access to hardware on behalf of Linux.
- C. Drivers are stored on their devices and are copied by the Linux kernel when a new device is attached

D. Drivers are downloaded from the vendor's driver repository when a new device is attached.

E. Drivers are either compiled into the Linux kernel or are loaded as kernel modules.

ANSWER: E

Explanation:

Drivers are either compiled into the Linux kernel or are loaded as kernel modules. A hardware driver is kernel code that enables the operating system to communicate with and control a specific hardware device or class of devices. Linux can include essential drivers directly in the kernel image so that they are available during early boot, including before a filesystem containing additional modules can be mounted. Other drivers are built as loadable kernel modules, which are separate kernel-object files that can be inserted when the relevant hardware is present or when functionality is needed.

This modular design lets a Linux installation support a broad range of hardware without requiring every possible driver to remain permanently resident in memory. Device discovery and module loading are commonly coordinated by the kernel together with userspace device management components such as `udev`; the needed module is normally selected from modules installed locally for the running kernel. Modules must be compatible with that kernel version and are managed with tools such as `modprobe`, `lsmod`, and `modinfo`. This distinction between built-in drivers and loadable modules is a fundamental part of Linux hardware support and kernel administration. See the [Linux kernel documentation on building external modules](#) and the [LPI Linux Essentials certification overview](#).

QUESTION NO: 4

Which statements about the `kill` command are correct? (Choose two.)

A. It can send a signal to a process identified by PID.

B. Without options, it sends `SIGTERM`.

C. It always removes the process executable from disk.

D. It can only be used by the root user.

E. `kill -9` sends `SIGHUP`.

ANSWER: A B

Explanation:

The `kill` command sends a signal to one or more processes identified by PID. Without a signal option, it sends `SIGTERM`, which asks the process to terminate and gives it an opportunity to handle cleanup. The command `kill -9 PID` sends `SIGKILL`, which cannot be caught or ignored by the target process.

See the [kill\(1\) manual page](#) and the [signal\(7\) manual page](#).

QUESTION NO: 5

What is true about the `su` command?

A. It is the default shell of the root account.

B. It can only be used by the user root.

C. It runs a shell or command as another user.

D. It changes the name of the main administrator account.

E. It locks the root account in specific time frames.

ANSWER: C

Explanation:

The statement *"It runs a shell or command as another user."* is correct. The `su` command, whose name traditionally means "substitute user," starts a shell using the identity of a specified target user. When no user name is supplied, the target is normally `root`. For example, `su - alice` starts a login shell as `alice`, applying that user's login environment such as their home directory and shell initialization files. A user must successfully authenticate as the target user unless system authentication rules, commonly configured through PAM, permit the switch without a password. The command is commonly used by an administrator to work temporarily under another account or by an authorized user to obtain an administrative shell. Although modern systems often use `sudo` for controlled, individual privileged commands, `su` remains the standard utility for changing the effective user context for an interactive shell or a command invocation. The `util-linux` manual documents the syntax as `su [options] [-] [user [argument...]]` and describes its purpose as changing the effective user ID and group ID to those of the specified user. See the [su\(1\) Linux manual page](#) and the [LPI Linux Essentials certification overview](#).

QUESTION NO: 6

Running the command `rm Downloads` leads to the following error:

```
rm: cannot remove 'Downloads': Is a directory
```

Which of the following commands can be used instead to remove `Downloads`, assuming `Downloads` is empty? (Choose two correct answers.)

- A. `undir Downloads`
- B. `rmdir Downloads`
- C. `dir -r Downloads`
- D. `rem Downloads`
- E. `rm -r Downloads`

ANSWER: B E

Explanation:

`rmdir Downloads` removes the directory named `Downloads` when it is empty. This command is specifically intended for removing empty directories: it removes the directory entry itself and succeeds only when there are no files or subdirectories within it. Thus, under the condition stated in the question, it is a direct and appropriate command.

`rm -r Downloads` also removes `Downloads`. The `-r` (recursive) option instructs `rm` to process directories and their contents recursively. Because recursion permits directory removal, the command works whether the directory is empty or contains entries. For an empty directory, there are simply no contents to traverse before the directory itself is removed. The option must use the ordinary ASCII hyphen, as in `-r`, rather than a typographic dash.

These commands demonstrate the two standard command-line approaches: use `rmdir` where an empty-directory-only operation is desired, or use recursive `rm` when directory traversal and deletion are intended. GNU's command documentation describes `rmdir` as removing empty directories and documents recursive removal through `rm -r`. See the [GNU Coreutils `rmdir` documentation](#) and the [GNU Coreutils `rm` documentation](#).

QUESTION NO: 7

Which command displays the release version of the currently running Linux kernel?

- A. `uname -r`
- B. `kernel --version`

- C. `release -k`
- D. `lskernel`
- E. `system --kernel`

ANSWER: A

Explanation:

`uname -r` displays the kernel release of the running system. For example, it may display a value such as `6.8.0-45-generic`. The `uname` command reports system information, and the `-r` option selects the kernel release specifically.

This differs from distribution-release information, which describes the installed Linux distribution rather than the kernel currently in use. See the [uname\(1\) manual page](#).

QUESTION NO: 8

Which of the following commands creates an archive file `work.tar` from the contents of the directory `./work/`?

- A. `tar --new work.tar ./work/`
- B. `tar -cf work.tar ./work/`
- C. `tar -create work.tgz -content ./work/`
- D. `tar work.tar < ./work/`
- E. `tar work > work.tar`

ANSWER: B

Explanation:

The command `tar -cf work.tar ./work/` creates a tar archive named `work.tar` and places the directory `./work/`, including its contents and subdirectories, into that archive. In tar's traditional option syntax, `c` selects the create operation, while `f` states that the next argument is the archive filename. Therefore, `work.tar` is used as the output archive, and `./work/` is the filesystem path to archive. A tar archive is a container format that preserves directory structure and file metadata; it is not inherently compressed merely because it uses the `.tar` filename extension. The command can be run from the directory containing `work`, or the path can be adjusted to match the location of that directory. This is the standard tar invocation expected for creating an uncompressed archive from a directory. GNU tar documents `-c` as creating a new archive and `-f` as selecting the archive file name. See the [GNU tar manual on creating archives](#) and the [tar\(1\) manual page](#).

QUESTION NO: 9

Which of the following commands are used to get information on the proper use of `ls`? (Choose two correct answers.)

- A. `option ls`
- B. `usage ls`
- C. `manual ls`
- D. `man ls`
- E. `info ls`

ANSWER: D E

Explanation:

`man ls` is the standard command for opening the manual-page documentation for `ls`. A manual page describes the command's purpose, syntax, available options, arguments, and often includes usage examples. It is the primary on-system reference interface for Unix and Linux commands, and users can navigate it with the pager controls and search within it for particular options.

`info ls` accesses GNU Info documentation, another documentation system commonly installed on GNU/Linux distributions. GNU core utilities, including `ls`, may provide detailed Info documentation that describes command behavior and options. The exact content available through `info` depends on the documentation packages installed on the system, but it is a valid command for obtaining usage information about `ls`.

These two commands therefore provide documented guidance on using `ls`, including its supported flags and behavior. The GNU Coreutils manual also contains the authoritative GNU documentation for directory listing functionality: [GNU Coreutils: ls invocation](#). For general information about accessing Linux manual pages, see [man\(1\) — Linux manual page](#).

QUESTION NO: 10

The current directory contains the following file:

```
-rwxr-xr-x 1 root root 859688 Feb 7 08:15 test.sh
```

Given that the file is a valid shell script, how can this script be executed? (Choose two correct answers.)

- A. `run test.sh`
- B. `${test.sh}`
- C. `cmd ./test.sh`
- D. `./test.sh`
- E. `bash test.sh`

ANSWER: D E

Explanation:

`./test.sh` executes the script as a program located in the current directory. The leading `./` is important because the current directory is commonly not included in the `PATH` search path. The displayed mode includes execute permission for the owner, group, and others (`-rwxr-xr-x`), so the shell can invoke the file directly. Direct execution also relies on the script having a valid interpreter declaration, such as `#!/bin/bash`, which is normally part of a valid executable shell script.

`bash test.sh` is also valid because it explicitly starts the Bash interpreter and supplies `test.sh` as the script file to read and execute. This form does not require the script itself to have execute permission, since Bash reads the file rather than the operating system executing it directly; however, the shown permissions already permit direct execution. Both commands use the file in the current directory: `./test.sh` identifies it by a relative path, while `bash test.sh` passes its filename to Bash. For details on command search paths and executing commands, see the [GNU Bash manual on command search and execution](#) and the [GNU Bash manual on shell scripts](#).

QUESTION NO: 11

Running the command `rm Downloads` leads to the following error: `rm: cannot remove 'Downloads/': Is a directory`

Which of the following commands can be used instead to remove Downloads, assuming Downloads is empty? (Choose two.)

- A. `undir Downloads`
- B. `rmdir Downloads`

- C. `dir -r Downloads`
- D. `rem Downloads`
- E. `rm -r Downloads`

ANSWER: B E

Explanation:

`rmdir Downloads` is appropriate because `rmdir` removes directories specifically, provided that they are empty. Since the question explicitly states that `Downloads` contains no files or subdirectories, it meets the condition required by `rmdir`.

`rm -r Downloads` is also valid. The recursive (`-r` or `-R`) option tells `rm` to remove a directory and process its contents recursively. For an empty directory, there are no contents to traverse, but the command still removes the directory itself. This form is commonly used when a directory may contain files, although it should be used carefully because it deletes contained files and subdirectories without moving them to a trash location.

The GNU Coreutils documentation describes `rmdir` as removing empty directories and documents the recursive option for `rm`: [GNU Coreutils: rmdir invocation](#) and [GNU Coreutils: rm invocation](#).

QUESTION NO: 12

Which of the following commands puts the lines of the file `data.csv` into alphabetical order?

- A. `a..z data.csv`
- B. `sort data.csv`
- C. `abc data.csv`
- D. `wc -s data.csv`
- E. `grep --sort data.csv`

ANSWER: B

Explanation:

The command `sort data.csv` reads the lines from `data.csv`, sorts them according to the active locale's collation rules, and writes the sorted result to standard output. For ordinary text data, this produces alphabetical ordering based on the contents of each line, starting with the first character and proceeding to later characters where needed. This is the standard Linux command for arranging text-file records in lexical order. Because `sort` outputs the result rather than changing the source file directly, the original `data.csv` remains unchanged unless the output is redirected to another file or an appropriate in-place workflow is used. For example, `sort data.csv > sorted-data.csv` saves the alphabetically ordered lines in `sorted-data.csv`. Sorting line-oriented records is especially useful for preparing data for comparison, reporting, deduplication, or processing by other command-line tools. The GNU Coreutils documentation describes `sort` as a utility that sorts text files, and its manual page specifies that it writes sorted concatenated input lines to standard output. See the [GNU Coreutils sort documentation](#) and the [sort\(1\) manual page](#).

QUESTION NO: 13 - (SIMULATION)

What parameter of `ls` prints a recursive listing of a directory 's content? (Specify ONLY the option name without any values or parameters.)

ANSWER: See the explanation for the answer

Explanation:

-R

The `ls -R` option lists directory contents recursively, including subdirectories.