

101-500.59q

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101-500



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LPIC-1 Exam 101

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Exam A

QUESTION 1

Consider the following output from the command `ls -li`:

```
525385 -rw-rw-r-- 2 1000 1000 0 Feb 12 19:44 a.txt
526255 lrwxrwxrwx 1 1000 1000 5 Feb 12 19:44 b.txt -> a.txt
```

How would a new file named `c.txt` be created with the same inode number as `a.txt` (Inode 525385)?



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- A. `ln -h a.txt c.txt`
- B. `ln c.txt a.txt`
- C. `ln a.txt c.txt`
- D. `ln -f c.txt a.txt`
- E. `ln -i 525385 c.txt`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 2

Consider the following directory:

```
drwxrwxr-x 2 root sales 4096 Jan 1 15:21 sales
```

Which command ensures new files created within the directory `sales` are owned by the group `sales`? (Choose two.)

- A. `chmod g+s sales`
- B. `setpol -R newgroup=sales sales`

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- C. `chgrp -p sales sales`
- D. `chown --persistent *.sales sales`
- E. `chmod 2775 sales`

Correct Answer: CE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 3

Which `chown` command changes the ownership to `dave` and the group to `staff` on a file named `data.txt`?

- A. `chown dave/staff data.txt`
- B. `chown -u dave -g staff data.txt`
- C. `chown --user dave --group staff data.txt`
- D. `chown dave+staff data.txt`
- E. `chown dave:staff data.txt`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 4

When considering the use of hard links, what are valid reasons not to use hard links?

- A. Hard links are not available on all Linux systems because traditional filesystems, such as `ext4`, do not support them
- B. Each hard link has individual ownership, permissions and ACLs which can lead to unintended disclosure of file content
- C. Hard links are specific to one filesystem and cannot point to files on another filesystem
- D. If users other than `root` should be able to create hard links, `su1n` has to be installed and configured
- E. When a hard linked file is changed, a copy of the file is created and consumes additional space

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 5

In compliance with the FHS, in which of the directories are man pages found?

- A. /opt/man/
- B. /usr/doc/
- C. /usr/share/man/
- D. /var/pkg/man
- E. /var/man/

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 6

FILL BLANK

Which file in the /proc filesystem lists parameters passed from the bootloader to the kernel? (Specify the file name only **without any path.**)

Correct Answer: cmdline

Section: (none)

Explanation

Explanation/Reference:

QUESTION 7

What is the process ID number of the `init` process on a System V init based system?

- A. -1
- B. 0
- C. 1

- D. It is different with each reboot
- E. It is set to the current run level

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 8

Which daemon handles power management events on a Linux system?

- A. acpid
- B. batteryd
- C. pwrmgntd
- D. psd
- E. inetd

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 9

Which of the following statements are true about the boot sequence of a PC using a BIOS? (Choose two.)

- A. Some parts of the boot process can be configured from the BIOS
- B. Linux does not require the assistance of the BIOS to boot a computer
- C. The BIOS boot process starts only if secondary storage, such as the hard disk, is functional
- D. The BIOS initiates the boot process after turning the computer on
- E. The BIOS is started by loading hardware drivers from secondary storage, such as the hard disk

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 10

A faulty kernel module is causing issues with a network interface card. Which of the following actions ensures that this module is not loaded automatically when the system boots?

- A. Using `lsmod --remove --autoclean` without specifying the name of a specific module
- B. Using `modinfo -k` followed by the name of the offending module
- C. Using `modprobe -r` followed by the name of the offending module
- D. Adding a `blacklist` line including the name of the offending module to the file `/etc/modprobe.d/blacklist.conf`
- E. Deleting the kernel module's directory from the file system and recompiling the kernel, including its modules

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 11

When is the content of the kernel ring buffer reset? (Choose two.)

- A. When the ring buffer is explicitly reset using the command `dmesg --clear`
- B. When the ring buffer is read using `dmesg` without any additional parameters
- C. When a configurable amount of time, 15 minutes by default, has passed
- D. When the kernel loads a previously unloaded kernel module
- E. When the system is shut down or rebooted

Correct Answer: AE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 12

What is the first program the Linux kernel starts at boot time when using System V init?

- A. `/lib/init.so`
- B. `/proc/sys/kernel/init`
- C. `/etc/rc.d/rcinit`
- D. `/sbin/init`
- E. `/boot/init`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 13

A Debian package creates several files during its installation. Which of the following commands searches for packages owning the file `/etc/debian_version`?

- A. `apt-get search /etc/debian_version`
- B. `apt -r /etc/debian_version`
- C. `find /etc/debian_version -dpkg`
- D. `dpkg -S /etc/debian_version`
- E. `apt-file /etc/debian_version`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 14

Which of the following properties of a Linux system should be changed when a virtual machine is cloned? (Choose two.)

- A. The partitioning scheme
- B. The file system
- C. The D-Bus Machine ID
- D. The permissions of `/root/`
- E. The SSH host keys

Correct Answer: CE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 15

Which of the following commands installs GRUB 2 into the master boot record on the third hard disk?

- A. `grub2 install /dev/sdc`
- B. `grub-mkrescue /dev/sdc`
- C. `grub-mbrinstall /dev/sdc`
- D. `grub-setup /dev/sdc`
- E. `grub-install /dev/sdc`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 16

What is true regarding the configuration of yum? (Choose two.)

- A. Changes to the repository configuration become active after running `yum confupdate`
- B. Changes to the yum configuration become active after restarting the `yum` service
- C. The configuration of package repositories can be divided into multiple files
- D. Repository configurations can include variables such as `$basearch` or `$releasever`
- E. In case `/etc/yum.repos.d/` contains files, `/etc/yum.conf` is ignored

Correct Answer: CD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 17

Which of the following `apt-get` subcommands installs the newest versions of all currently installed packages?

- A. `auto-update`
- B. `dist-upgrade`
- C. `full-upgrade`
- D. `install`
- E. `update`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 18

Which command uninstalls a package but keeps its configuration files in case the package is re-installed?

- A. `dpkg -s pkgname`
- B. `dpkg -L pkgname`
- C. `dpkg -P pkgname`
- D. `dpkg -v pkgname`
- E. `dpkg -r pkgname`



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Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 19

Which of the following commands lists the dependencies of the RPM package file `foo.rpm`?

- A. `rpm -qpR foo.rpm`
- B. `rpm -dep foo`
- C. `rpm -ld foo.rpm`
- D. `rpm -R foo.rpm`
- E. `rpm -pD foo`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 20

What is the maximum niceness value that a regular user can assign to a process with the `nice` command when executing a new process?

- A. 9
- B. 15
- C. 19
- D. 49
- E. 99

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 21

Which of the following commands list all files and directories within the `/tmp/` directory and its subdirectories which are owned by the user root? (Choose two.)

- A. `find /tmp -user root -print`
- B. `find -path /tmp -uid root`

- C. `find /tmp -uid root -print`
- D. `find /tmp -user root`
- E. `find -path /tmp -user root -print`

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 22

Which of the following are valid stream redirection operators within Bash? (Choose two.)

- A. `<`
- B. `#>`
- C. `%>`
- D. `>>>`
- E. `2>&1`

Correct Answer: AE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 23

Which of the following vi commands deletes two lines, the current and the following line?

- A. `d2`
- B. `2d`
- C. `2dd`
- D. `dd2`
- E. `de12`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 24

The command `dbmaint &` was used to run `dbmaint` in the background. However, `dbmaint` is terminated after logging out of the system. Which alternative `dbmaint` invocation lets `dbmaint` continue to run even when the user running the program logs out?

- A. `job -b dbmaint`
- B. `dbmaint &>/dev/pts/null`
- C. `nohup dbmaint &`
- D. `bg dbmaint`
- E. `wait dbmaint`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 25

From a Bash shell, which of the following commands directly execute the instructions from the file `/usr/local/bin/runme.sh` without starting a subshell? (Choose two.)

- A. `source /usr/local/bin/runme.sh`
- B. `/usr/local/bin/runme.sh`
- C. `/bin/bash /usr/local/bin/runme.sh`
- D. `. /usr/local/bin/runme.sh`
- E. `run /usr/local/bin/runme.sh`

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 26

FILL BLANK

Which program runs a command in specific intervals and refreshes the display of the program's output? (Specify **ONLY** the command without any path or parameters.)

Correct Answer: watch**Section:** (none)**Explanation****Explanation/Reference:****QUESTION 27**

Immediately after deleting 3 lines of text in vi and moving the cursor to a different line, which single character command will insert the deleted content below the current line?

- A. i (lowercase)
- B. p (lowercase)
- C. P (uppercase)
- D. U (uppercase)
- E. u (lowercase)

Correct Answer: B**Section:** (none)**Explanation****Explanation/Reference:****QUESTION 28**

Which of the following commands changes all CR-LF line breaks in the text file `userlist.txt` to Linux standard LF line breaks and stores the result in `newlist.txt`?

- A. `tr -d '\r' < userlist.txt > newlist.txt`
- B. `tr -c '\n\r' '' <newlist.txt> userlist.txt`
- C. `tr '\r\n' '' <userlist.txt> newlist.txt`
- D. `tr '\r' '\n' userlist.txt newlist.txt`
- E. `tr -s '/^M/^J/' userlist.txt newlist.txt`

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 29

What output will be displayed when the user `fred` executes the following command?

```
echo `fred $USER`
```

- A. `fred fred`
- B. `fred /home/fred/`
- C. ``fred $USER``
- D. `fred $USER`
- E. ``fred fred``

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 30

Which of the following commands displays the path to the executable file that would be executed when the command `foo` is invoked?

- A. `lsattr foo`
- B. `apropos foo`
- C. `locate foo`
- D. `whatis foo`
- E. `which foo`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 31

When redirecting the output of `find` to the `xargs` command, what option to `find` is useful if the filenames contain spaces?

- A. `-rep-space`
- B. `-printrul`
- C. `-nospace`
- D. `-ignore-space`
- E. `-print0`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 32

Which of the following commands can be used to determine how long the system has been running? (Choose two.)

- A. `uptime`
- B. `up`
- C. `time --up`
- D. `uname -u`
- E. `top`

Correct Answer: AE

Section: (none)

Explanation

Explanation/Reference:

QUESTION 33

Which of the following files, located in a user's home directory, contains the Bash history?

- A. `.bashrc_history`

- B. `.bash_histfile`
- C. `.history`
- D. `.bash_history`
- E. `.history_bash`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 34

Which wildcards will match the following filenames? (Choose two.)

`ttyS0`

`ttyS1`

`ttyS2`

- A. `ttyS[1-5]`
- B. `tty?[0-5]`
- C. `tty*2`
- D. `tty[A-Z][012]`
- E. `tty[ss][02]`

Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 35

Which of the following commands redirects the output of `ls` to standard error?

- A. `ls >-1`
- B. `ls <<ERR`
- C. `ls >&2`
- D. `ls >>2`

E. `ls |error`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 36

Which of the following commands displays the contents of a gzip compressed tar archive?

- A. `gzip archive.tgz | tar xvf -`
- B. `tar -fzt archive.tgz`
- C. `gzip -d archive.tgz | tar tvf -`
- D. `tar cf archive.tgz`
- E. `tar ztf archive.tgz`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 37

Which of the following commands prints a list of usernames (first column) and their primary group (fourth column) from the `/etc/passwd` file?

- A. `fmt -f 1,4 /etc/passwd`
- B. `cut -d : -f 1,4 /etc/passwd`
- C. `sort -t : -k 1,4 /etc/passwd`
- D. `paste -f 1,4 /etc/passwd`
- E. `split -c 1,4 /etc/passwd`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 38

Which of the following regular expressions represents a single upper-case letter?

- A. :UPPER:
- B. [A-Z]
- C. !a-z
- D. %C
- E. {AZ}

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 39

The installation of a local Debian package failed due to unsatisfied dependencies. Which of the following commands installs missing dependencies and completes the interrupted package installation?

- A. `dpkg --fix --all`
- B. `apt-get autoinstall`
- C. `dpkg-reconfigure --all`
- D. `apt-get all`
- E. `apt-get install -f`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 40

Which of the following commands are valid in the GRUB 2 configuration file? (Choose two.)

- A. `menuentry`

- B. uefi
- C. pxe-ifconfig
- D. insmod
- E. kpartx

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 41

What is the purpose of the `ldd` command?



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- A. It lists which shared libraries a binary needs to run.
- B. It installs and updates installed shared libraries.
- C. It turns a dynamically linked binary into a static binary.
- D. It defines which version of a library should be used by default.
- E. It runs a binary with an alternate library search path.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 42

What can the Logical Volume Manager (LVM) be used for? (Choose three.)

- A. To create snapshots.

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- B. To dynamically change the size of logical volumes.
- C. To dynamically create or delete logical volumes.
- D. To create RAID 9 arrays.
- E. To encrypt logical volumes.

Correct Answer: ABC

Section: (none)

Explanation

Explanation/Reference:

QUESTION 43

What are the main differences between GPT and MBR partition tables regarding maximum number and size of partitions? (Choose two.)

- A. MBR can handle partition sizes up to 4 TB, whereas GPT supports partition sizes up to 128 ZB.
- B. By default, GPT can manage up to 128 partitions while MBR only supports four primary partitions.
- C. By default, GPT can manage up to 64 partitions while MBR only supports 16 primary partitions.
- D. MBR can handle partition sizes up to 2.2 TB, whereas GPT supports sizes up to 9.4 ZB.
- E. Both GPT and MBR support up to four primary partitions, each with up to 4096 TB.

Correct Answer: BD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 44

A backup software heavily uses hard links between files which have not been changed in between two backup runs. Which benefits are realized due to these hard links? (Choose two.)

- A. The old backups can be moved to slow backup media, such as tapes, while still serving as hard link target in new backups.
- B. The backup runs faster because hard links are asynchronous operations, postponing the copy operation to a later point in time.
- C. The backup is guaranteed to be uncharged because a hard linked file cannot be modified after its creation.
- D. The backup consumes less space because the hard links point to the same data on disk instead of storing redundant copies.
- E. The backup runs faster because, instead of copying the data of each file, hard links only change file system meta data.

Correct Answer: AD

Section: (none)

Explanation

Explanation/Reference:

QUESTION 45

FILL BLANK

Which file from the `/proc/` file system contains a list of all currently mounted devices? (Specify the full name of the file, **including path**.)

Correct Answer: `/proc/mounts`

Section: (none)

Explanation

Explanation/Reference:

QUESTION 46

How many fields are in a syntactically correct line of `/etc/fstab`?

- A. 3
- B. 4
- C. 5
- D. 6
- E. 7

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 47

Running `chmod 640 filea.txt` as a regular user doesn't update `filea.txt`'s permission. What might be a reason why `chmod` cannot modify the permissions? (Choose two.)

- A. `filea.txt` is owned by another user and a regular user cannot change the permissions of another user's file.

- B. `filea.txt` is a symbolic link whose permissions are a fixed value which cannot be changed.
- C. `filea.txt` has the sticky bit set and a regular user cannot remove this permission.
- D. `filea.txt` is a hard link whose permissions are inherited from the target and cannot be set directly.
- E. `filea.txt` has the SetUID bit set which imposes the restriction that only the `root` user can make changes to the file.

Correct Answer: AB

Section: (none)

Explanation

Explanation/Reference:

QUESTION 48

Which of the following commands show how the shell handles a specific command?

- A. `where`
- B. `type`
- C. `stat`
- D. `case`
- E. `fileinfo`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 49

Which of the following commands displays the manual page `command` from section 1?

- A. `man command(1)`
- B. `man command@1`
- C. `man 1 command`
- D. `man 1.command`
- E. `man -s 1 command`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 50

Which of the following commands creates or, in case it already exists, overwrites a file called `data` with the output of `ls`?

- A. `ls 3> data`
- B. `ls >& data`
- C. `ls > data`
- D. `ls >> data`
- E. `ls >>> data`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 51

Which of the following commands is used to change options and positional parameters within a running Bash shell?

- A. `history`
- B. `setsh`
- C. `bashconf`
- D. `set`
- E. `envsetup`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 52

Which of the following commands outputs `test` to the shell?

- A. `cat <!EOT`
`test`
`EOT`
- B. `cat <|EOT`
`test`
`EOT`
- C. `cat !<EOT`
`test`
`EOT`
- D. `cat &<EOT`
`test`
`EOT`
- E. `cat <<EOT`
`test`
`EOT`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 53

What is the default nice level when a process is started using the `nice` command?

- A. -10
- B. 0
- C. 10
- D. 15
- E. 20

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 54

A user accidentally created the subdirectory `\dir` in his home directory. Which of the following commands will remove that directory?

- A. `rmdir ~/\dir`
- B. `rmdir "~/\dir"`
- C. `rmdir ~/'dir'`
- D. `rmdir ~/\dir`
- E. `rmdir '~/\dir'`

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 55

Which of the following commands can perform searches on file contents using regular expressions?

- A. `find`
- B. `locate`
- C. `grep`
- D. `reggrep`
- E. `pgrep`

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 56

Which of the following commands determines a file's format by using a definition database file which contains information about all common file types?

- A. `type`
- B. `file`

- C. magic
- D. pmagic
- E. hash

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 57

Which of the following commands generates a list of user names from `/etc/passwd` along with their login shell?

- A. `column -s : 1,7 /etc/passwd`
- B. `chop -c 1,7 /etc/passwd`
- C. `colrm 1,7 /etc/passwd`
- D. `sort -t: -k1,7 /etc/passwd`
- E. `cut -d: -f1,7 /etc/passwd`

Correct Answer: E

Section: (none)

Explanation

Explanation/Reference:

QUESTION 58

If the gzip compressed tar archive `texts.tar.gz` contains the files `a.txt` and `b.txt`, which files will be present in the current directory after running `gunzip texts.tar.gz`?

- A. Only `a.txt`, `b.txt`, and `texts.tar.gz`
- B. Only `texts.tar` and `texts.tar.gz`
- C. Only `a.txt.gz` and `b.txt.gz`
- D. Only `a.txt` and `b.txt`
- E. Only `texts.tar`

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 59

When booting from the hard disk, a computer successfully loads the Linux kernel and initramfs but hangs during the subsequent startup tasks. The system is booted using a Linux based rescue CD to investigate the problem. Which of the following methods helps to identify the root cause of the problem?

- A. Using the `dmesg` command from the rescue CD's shell to view the original system's boot logs.
- B. Investigating the file `/proc/kmsg` on the computer's hard disk for possible errors.
- C. Investigating the file `/var/log` on the computer's hard disk for possible errors.
- D. Using `chroot` to switch to the file system on the hard disk and use `dmesg` to view the logs.
- E. Rebooting again from the hard drive since the system successfully booted from the rescue CD.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

