1. Suppose that the Current Working Directory is /lib/modules, give a single "CAT" command using a relative pathname

and a command using an absolute pathname, that would print out the contents of the regular file /lib/security/pam-access.

[osboxes@osboxes lib]$ ls

alsa games jvm-commmon modules-load.d sysctl.d

binfmt.d grub jvm-exports mozilla systemd

crda java jvm-private NetworkManager tmpfiles.d

cups java-1.5.0 kbd polkit-1 tuned

debug java-1.6.0 kdump python2.7 udev

dracut java-1.7.0 kernel rpm yum-plugins

firewalld java-1.8.0 locale sendmail

firmware java-ext modprobe.d sendmail.postfix

fontconfig jvm modules sse2

[osboxes@osboxes lib]$ cd modules

[osboxes@osboxes modules]$ ls

3.10.0-1062.9.1.el7.x86\_64 3.10.0-1062.el7.x86\_64 3.10.0-862.el7.x86\_64

[osboxes@osboxes modules]$ cat 3.10.0-1062.el7.x86\_64

cat: 3.10.0-1062.el7.x86\_64: Is a directory

[osboxes@osboxes lib]$ ls /lib/security/pam-access

2. What is the standard command to determine the pathname/location of the mv command/program?

[osboxes@osboxes lib]$ mv file1file2

3. What is the purpose of the /sbin subdirectory? (I.e., what is normally stored there?)

/sbin is a standard subdirectory of the root directory in Linux. It contains executables such as ready to run programs like administrative tools.

4. Explain the difference between “the root directory” and “root’s directory”.

Root directory is the top entity level directory/ file system in Linux. It does allow the user to have full privileges for modifications.

Root’s directory is also referred to the home directory and it is a restricted area for everybody else. In other words. Users are restricted to access the home directory.

5. Explain what the term “search path” means in the context of a shell (like Bash).

A search path is the sequence of directories in which the shell looks for commands to execute. The shell can not find any editor programs like the “ls” command without a search path.

6. What are two commands that could be used to display your current search path?

Pwd -L pwd -P

7. Suppose your current env PATH variable is set to /usr/bin:/bin:/usr/local/bin. Explain what

the shell does when you type the command “foo” at a prompt (and type return).

As the PATH is just a variable, PATH is accessible only from command line or the script. $PATH can be used and when contructing $echo $ ${PATH}foo, it will try to look for a variable named PATHfoo.

8. Logged in as a non-root user, is /sbin in your search path? Explain why it is or is not

there.

According to the research, there are many ways to make it available to the non-users. But as a norm, /sbin is a standard subdirectory of the root directory in Linux. Therefore, it is mostly an administrative tool which is made available to the root user. Though there are ways to make it available to the non-users in many other flavors of Linux, it seems to be a bad practice.

9. Suppose you have created a shell script named foo and have made it executable, but

when you type it as a command (“foo”), Bash says: “command not found”. What is

wrong and what must you do to run the command?

The mistake is not having the extension .sh. Usually to run shell scripts .sh must be mentioned.

10. Explain why the Linux does not have drive letters like Windows does.

The basic answer would be the file system procedure used in Linux. In Windows, the operating system itself treat drives, files, mount devices as separate entities. But in Linux, any of those entities are considered as files. Hence, Linux uses a file based system rather than a tree hierarchy like Linux.

11. What is the contents of a file ~/song.mp3?

Binary format audio data in a compressed file format.

12. What command would show all lines containing the string “brace expansion” (ignoring

case) in the man pages for Bash?

[osboxes@osboxes /]$ man -s1 -Kw --regex 'brace expansion'

/usr/share/man/man1/bash.1.gz

/usr/share/man/man1/bash.1.gz

13. What command would delete some files from the directory /tmp, where the relevant

filenames have this pattern: they begin with “A” or “B”, contain the string “406”, and

have a (final) extension of “.txt” or “.text”.

[osboxes@osboxes /]$ rm -fv a\*b\*406\*.txt

14. What are the commands that will reset the current working directory to your home directory, regardless of what directory you are currently in?

[osboxes@osboxes /]$ cd ~

15. What are hidden files in Linux/UNIX, why are they called that, and what are they

commonly used for?

In the Linux operating system, files that begin with “.” Are identified as hidden files. And the following command is used to show the hidden files.

[osboxes@osboxes ~]$ ls -a

. .bashrc Documents latest.zip Pictures Videos

.. .cache Downloads latest.zip.1 Public .viminfo

.bash\_history .config .esd\_auth .local sda\_disk.img

.bash\_logout .dbus .gnupg .mozilla .ssh

.bash\_profile Desktop .ICEauthority Music Templates