

1 Which of the following commands will read the content of a text file and display on standard output

- A. less
- B. head
- C. cat
- D. All of the above
- E. None of the above

2. Choose the statement below that best matches the **tree** command:

- A. tree is installed by default in Ubuntu Linux
- B. tree can only ever be removed from a system by running the **axe** command.
- C. an internet connection is not required to install tree because all application repositories are built into my local system
- D. tree is essentially useless since the command **forest** is better.
- E. None of the above

3. Choose the statement that best matches the **file** command:

- A. can be used to determine the file type.
- B. never works for directories, it can only be used on regular files.
- C. is used to redirect standard input into a command as a parameter
- D. does nothing; **file** is not a Linux command.
- E. None of the above

1) Identify the root user's home directory in Linux.

- A. /
- B. /root/home
- C. /home/root
- D. /root
- E. None of the above

2) The Linux command that allows for deleting a directory, but only if it is empty: _____.

- A. mv
- B. del
- C. rm
- D. rmdir
- E. None of the above

3) The Linux command that will print the current working directory _____.

- A. pwd
- B. cd
- C. mkdir
- D. ls
- E. None of the above

4) Which one of the following would **NOT** place you in your home directory, where username is the name of the currently logged in user?

- A. cd
- B. cd ~
- C. cd ~/username
- D. cd /home/username
- E. None of the above

6) The command that will list all files in long format in current working directory, including hidden files

_____.

- A. `ls -ld`
- B. `ls -al`
- C. `ls -l`
- D. `ls -i`
- E. None of the above

7) Logged in as the default user, what is the command used to set root user's password?

- A. `password root`
- B. `set password`
- C. `sudo passwd root`
- D. `su - root`
- E. None of the above

9) Identify the Linux command that renames `~/oldfile` to `~/newfile` : _____

- A. `rm ~/oldfile ~/newfile`
- B. `mv ~/oldfile ~/newfile`
- C. `cp ~/oldfile ~/newfile`
- D. `touch ~/oldfile ~/newfile`
- E. None of the above

10) Which of the following Linux commands prevents you from accidentally overwriting a file when you redirect output to a file?

- A. `set -C`
- B. `echo $PATH`
- C. `umask`
- D. `chmod 777 /`
- E. None of the above

11) To properly shutdown the system immediately from command line in Linux, you should:

- A. Log in as root and type: `shutdown -r now`
- B. Log in as root and type: `shutdown -h now`
- C. Log in as root and type: `restart now`
- D. Turn the power off and walk away.
- E. None of the above

13) The command that displays the name of current shell _____.

- A. `echo $SHELL`
- B. `cat /etc/shells`
- C. `uname -r`
- D. `cat /etc/fstab`
- E. None of the above

14) Identify the Linux command used to display the inode number of **/etc/fstab**

- A. `ls /etc/fstab`
- B. `ls -l /etc/fstab`
- C. `ls -a /etc/fstab`
- D. `ls -i /etc/fstab`
- E. None of the above

15) Which of the following commands will create a soft link to **/etc/fstab** in user's home directory?

- A. `ln /etc/fstab ~/fstab`
- B. `ln -s /etc/fstab ~/fstab`
- C. `cat /etc/fstab`
- D. `touch /etc/fstab`
- E. None of the above

16) Which of the following is NOT true about hard link in Linux?

- A. You may create multiple hard links to the same file
- B. All hard links have the same inode number as the original file's
- C. All hard links become meaningless (orphan link) if the original file is removed
- D. The physical data of the file will not be deleted from the disk until all hard links are deleted.
- E. None of the above

Answer question **17** to **21** based on the following:

Log into Linux as **root**, and run the following commands:

```
mkdir -p ~/2016/tests
cd ~/2016/tests
mkdir test1 test2
touch f1 f2 f3 f4
cp f1 f2 test1
cp f3 f4 ./test2
mv f1 test1/f3
cp f3 test2
cd ../../
pwd
rmdir ~/2016/tests/test1
rm -r ~/2016/tests
```

17) How many regular files are left in **~/2016/tests/test1** after executing the above commands?

- A. 0
- B. 1
- C. 2
- D. 3
- E. None of the above

18) How many regular files are left in **~/2016/tests/test2** after executing the above commands?

- A. 1
- B. 2
- C. 3
- D. 4
- E. None of the above

19) How many directories and subdirectories have been created (including deleted directories)?

- A. 2
- B. 3
- C. 4
- D. 5
- E. None of the above

20) What is the output of **pwd** command ?

- A. /
- B. /root
- C. /root/2016
- D. /root/2016/tests
- E. None of the above

21) How many directories and subdirectories have been successfully removed?

- A. 0
- B. 1
- C. 2
- D. 3
- E. None of the above

22) Which of the following are all valid basic file permissions under Linux?

- A. Read, Write, Hidden, Read Only, Execute
- B. Read, Write, Execute
- C. Read, System, Hidden, Archive
- D. Read, Hidden, Execute
- E. None of the above

23) What are the permissions in octal mode of the file **fileone**, given the file listing below: **-rwxr-xr-- 2 steven students 16 Oct 21 12:37 fileone**

- A. 420401020
- B. 651
- C. 653
- D. 754
- E. None of the above

24) Given the file permission **rw-rw-r--** for a file named **script1** in current directory, identify the **chmod** command that adds execute permissions for owner and group and removes read permission from others:
A. `chmod 750 script1` B. `chmod 760 script1` C. `chmod 770 script1` D. `chmod 774 script1` E. None of the above

25) After successfully executing the following command,

chmod ug=rw,o=r ~/script2

What are the permissions given to **~/script2**?

A. `rw-rw-r--` B. `rw-r-xr-x` C. `rw--wx-wx` D. `rw-x-w--w-` E. None of the above

26) Login as root, identify the Linux command used to give everyone full access permission to directory **/public**.

- A. `chmod 777 /public`
- B. `chmod ugo=rwx /public`
- C. `chmod a+rwx /public`
- D. `chmod ugo+rwx /public`
- E. All of the above

Given file listing as the following,

```
-rwxr-x-w- 2 david students 127 Oct 21 12:41 filetwo
```

Answer question 28 to 29

28) What are the owner and group of **filetwo**?

A. owner: david group: students B. owner: students group: david C. owner: root group: root D. owner: david group:david E. None of the above

29) Log in as root, which of the following is the right command to change **filetwo**'s owner to **jack** and group to **faculty**?

A. `chown filetwo faculty.jack`
B. `chgrp jack faculty paul`
C. `chown jack faculty filetwo`
D. `chown jack.faculty filetwo`
E. None of the above

30) With an umask of 033, which will be the default file permission?

A. `rw---x--x`
B. `rw--w--w-`
C. `rw-r--r--`
D. `rw-rw-r--`
E. None of the above

31) To set default directory permission to **rwxr-xr--** , you should set umask to _____

A. 022
B. 023
C. 754
D. 054
E. None of the above

32. Which command line lists all possible utilities available for sorting files?

a. `find sort`
b. `man sort`
c. `man -k sort`
d. `grep 'sort' /etc/`
e. `locate sort`

33. How many arguments and options are there to the command:

```
wc -wc wc
```

a. Two command line arguments, one of which contains two options.
b. Two arguments, no options.
c. Two command name arguments and two bundled options.
d. Two arguments, one of which is a single option and the other is a pathname.
e. Two options, no arguments.

34. If my current directory is **/etc**, which of these pathnames is equivalent to the file name **/etc/passwd**?

a. `./etc/passwd`
b. `../etc/passwd/.`
c. `/passwd`
d. `passwd`
e. `../passwd`

35. The shell expands a leading tilde (~) in a pathname (e.g. ~/foo) to be:

- a. the parent directory
- b. the **ROOT** directory
- c. the directory /root
- d. your **HOME** directory
- e. the current directory

36. In the output of `ls -a`, the two-character name `..` (two periods, or dot-dot) signifies what?

- a. It begins every name that is hidden.
- b. The current directory.
- c. A file or directory with double links.
- d. The **ROOT** directory.
- e. The parent directory.

37. In the output of the command `ls -a`, a dot (period) that *begins* a name signifies what?

- a. A name that is hidden.
- b. The parent directory.
- c. A name with an unprintable character.
- d. The current directory.
- e. A current file.

38. What is the output of this successful command sequence?

`cd /tmp ; touch dir ; mkdir bar ; pwd`

- a. /tmp
- b. /tmp/bar
- c. /tmp/dir/bar
- d. /bar
- e. /tmp/dir

39. Which *CTRL* key will erase a full line of typing in a terminal window?

- a. ^R b. ^I c. ^U d. ^C e. ^D

40.

To make the bash shell complete commands or file names, you type the first part of the command or file name and then press this key:

- a. [TAB]
- b. [CTRL] - [C]
- c. [ALT] - [F1]
- d. [ALT]
- e. [CTRL] - [D]