**Basic**

1. What command is used to get the IP addresses of all interfaces on a server?

ifconfig

2. What is the purpose of "mv" command?

To move a file across directories

3. Which command is used to create a new empty file?

Touch

4. Which command is used to display the contents of a directory?

Ls -a or ls -l

5. Which command is used to display all the file names along with their types of the current directory?

ls

6. Which command is used to clear the terminal?

Clear

7. What are daemons?

Background processes

8. Which command is used to move to the parent directory?

Cd

9. What does echo command do?

Used to display line of text/string that are passed as an argument. For example, echo “My name is Abhishek” will display My name is Abhishek

10.How to display content of a file?

cat

11. How to identify which shell you are using?

Ps -p $$

12. How do you check if a particular service is running?

Top or ps aux

13.What is the command to run a program with elevated permissions?

Prefix “sudo” with the command and it will run it with superuser privileges

14.Which command is used to display the path of the current working directory?

pwd

15. How to delete a directory forcefully?

Rm -rf dir

16.Which command is used to switch from superuser to normal user?

su

17. How to switch to superuser (root) with elevated permissions?

Sudo -I or sudo -s

18.How to determine the type of a file?

File <name of file>

**INTERMEDIATE**

1. What are the different modes when using VI editor?

Insert mode, command mode, and last line mode. Insert mode to type text into a file or to edit text in an existing file. Command mode to type commands to do specific things. Last line mode is used for more complex commands to go to the very last line of the code.

2. Which command is used to create multiple directories simultaneously?

Mkdir dir1 dir 2 and so on

3. What is LILO?

Stands for Linux Loader which is a boot loader or a boot manager used to boot up the os from an external source like a ssd etc.

4. How cd ~, cd / and cd - are different from each other?

Cd ~ used to get to the home directory

Cd / used to get to the system’s root directory

Cd – used to get to the previous directory of the current directory

5. What is a grep command?

Used to search for patterns in a file or the output of a command

6. If we are in the directory X and we are running rmdir X being in that directory X. Will this command successfully remove the directory or not?

I think it will provided the directory is empty

7. What are the contents of /usr/local?

-bash: /usr/local: is a directory

8. Which command is used to display the current username?

Whoami for the name or Finger user for details

9. What command is used to change your password?

Sudo -i then passwd <username> the system will prompt you to enter the password twice

10. How to find the difference in two configuration files?

Diff <(grep -v '^#' file1) <(grep -v '^#' file2)

Or

vimdiff file1 file2

11. How to find where a file is located in Linux?

Find / -iname <name of the file>

12. Which command shows the users that are logged in?

Finger user

13. How to forcefully stop a process which is running in the background?

Ps to get the process id and then kill pid

14. Which command is used to list the name of files starting from any particular alphabet or string?

Ls -d /<directory name>/[alphabets]\*

15. How to move multiple files of the same extension to a different directory?

Mv {\*.txt} ../<directory name>

16. What command would you use to check how much memory is being used?

I found many commands like free -m, cat proc/meminfo, vmstat -s etc, however, none seem to working for some reason.

17. Which command is used to display the list of content in reverse order?

Tac <file name>

18. What command is used to show how long it's been since the server was rebooted?

Last reboot

19. What command is used to change the ownership of a file?

Chown <new user name> <filename>

**ADVANCED**

1. How to see the list of mounted devices on a Linux system?

mount

2. How to check disk usage in terms of kilobytes(K), megabytes(M) and gigabytes(G)?

Df -h

3. What is Swap Space? What is a typical size for a swap partition in Linux?

Swap space is used when the amount of available ram is full. When used, inactive pages in the memory are moved over to this space. 2 – 8 gb ram – 2 times the amount of ram. 8 – 64 gb ram – 1.5 times the amount of ram.

4. How would you schedule a task in Linux?

Contrab -e –to open the users contrab file

--it will open the vi editor

--it uses the following sequence and identifiers to identify minutes, hours, days, months, weekdays etc:

minute(0-59) hour(0-23) day(1-31) month(1-12) weekday(0-6). A (\*) can also be used to denote any of the identifiers. Ex., (\*) for months will run the command once every month.

If we want to schedule a backup of all user accounts every month we can use the below:

29 0 \* \* \* /usr/bin/abhishek --29 is the 30 minute mark, 0 is a 12am mark for the user abhishek

0 11 \* 1-6 \* /usr/bin/abhishek –runs the backup at noon everyday, however, only in the first 6 months of the year.

Finally, we save the file by pressing Ctrl-O and Ctrl-X to close the editor.

5. How these commands would be working try and explain (files contain “hello” word) :

● grep -v -i hello file1.txt – (-v) is used to display all lines that do not contain the word hello as the search criteria and (-i) is used to display lowercase and uppercase results. Will not display anything

● grep -i hello file2.txt - (-i) is used to display lowercase and uppercase results. Will display hello

● grep -A 2 hello file2.txt – will print 2 lines after the match

● grep -C 4 hello file1.txt – will print 4 lines before and after the match

● grep -B 3 hello file1.txt - will print 3 lines after the match

● ps -ef | more – (-e) generates every process currently running and (-f) generates a list containing fewer items of information for each process

● awk '{print $2,$5;}' employee.txt – will print the second and the fifth field of each line from the file employee.txt

6. What is the export command used for? (Give Example)

This is a built-in command used to view all exported variables and functions that have been passed to the child processes. Ex., simple export will display declare -x and all the processes that have been exported throughout the system

7. Explain the redirection operator?

It is a Linux feature that can help change the standard input/output devices while executing a command. Ex., standard output is the screen but we can use ‘>’ to redirect that output to a file. Similarly, we can use ‘<’ to use a series of text from a file instead of the standard inputs from the keyboard.

8. Which command is used to review boot messages?

Mesg command

9. Which command is used to change the permissions of a file? Explain its usage?

Chmod. Octal can be used to specify permissions. Ex., chmod 42 hello.txt will grant read and write permission to the users of that file.

10. Which command would you use to create a file system on a new hard drive?

Mkfs

11. How to compress files in Linux?

zip ./file1.zip file1 will compress file1 while leaving the original intact

12. Which file is used to automatically mount file systems on boot?

/etc/fstab configuration file

13. Find out the purpose of each of the following commands:

● shutdown – power off

● diff – finding differences in 2 files

● sort – sorts the contents of a text file, line by line

● ps – utility to display information related to system processes

● kill – to kill a particular process

● mount – used to mount the filesystem found on a device like an external ssd

● nano – it’s a command line text editor

14. What are symbolic links? How do you create one using command?

Also known as soft links, is sort of a hyperlink that doesn’t contain any data within itself, however, points to the target file containing data.

Ln -s <source directory/file name> <name of the symbolic link>

15. How would you copy a file or a directory from your system to another

system on the same network?

scp <username>@<target hostname>:/<directory or file name to be copied> .