

**NOTE:** Provide syntax where ever necessary.

1. How many arguments are in this line (not counting the command itself).

```
touch '/etc/cron/cron.allow' 'file 42.txt' "file 33.txt"
```

2. What is the command to move a file named `data` from the `/home/user` directory to `/home/user/Documents`?
3. What are the commands used with dircetories. List all with explanation ?
4. Name 5 distros in Linux .
5. Which command is used to view the first 5 lines of a file sample.txt ? Write syntax.
6. Which command do you use in `vi` to delete the current line?
7. How do you search for a word called `error` in `vi`?
8. How do you quit `vi` without saving any changes?
9. Explain how to enter visual mode in `vi` to select text.
10. How do you check the default file permissions for newly created files and directories?
11. What is swap space ? What is the typical size of swap space ?
12. What does the Linux directory structure look like? Can you name some of the folders and their designated use?
13. What is the significance of a dot at the start of a file name?
14. Difference between hard link and Soft link.
15. How will you create a soft link for a file ?

16.How will you redirect stdout to a file data.txt and stderr to a file error.txt ? Give Syntax.

17.What is a Shell ?

18.How do you list active processes? Can you stop one from running? give syntax

19.What is the purpose of the 'uptime' command in Linux?

- a. Display current time
- b. Display system uptime
- c. Display system load average
- d. Display user login history

20.Which command is used to navigate to the home directory in Linux?

- a. 'home'
- b. 'cd home'
- c. 'cd ~'
- d. 'move home'

21.What is the purpose of the grep command?

- a. Count the number of words in a file
- b. Find and replace text in a file
- c. Search for patterns in a file
- d. Display file permissions

22.What is the purpose of the `/etc/passwd` file, and how is it structured?

23. What command allows you to switch to another user's account (without logging out of your current session)?
24. How do you list all the groups that a user called `developer` belongs to?
25. How can you lock the account of a user named `jane` to prevent them from logging in?
26. Explain how you would add an existing user `jack` to a group called `devgroup`.
27. What is the location of the `cat` and the `passwd` commands?
28. Execute `hostname` and `uname` command on the same line.
29. Execute `sleep 200` in background
30. Create a file that contains the names of five people. Use `cat` and output redirection to create the file and use a here document to end the input.
31. Put a sorted list of all bash users in `bashusers.txt`. Provide syntax
32. User `root` has created a file "secret" with below permission which must not be opened by anyone except `root` and another user "deepak", how can this be done?  
  

```
# ls -l secret
-rwx----- 1 root root 0 May 31 10:59 secret
```
33. By default when I create a user I see that the default shell assigned is `/bin/bash` and the default home directory which is assigned is under `/home`.  
How can I make sure that next time I use "useradd", the default assigned shell is `ksh` and default home directory of user is `/export/home/<username>`  
(2 Possible ways to achieve this. specify both)
34. How do you find the process ID (PID) of a running process. List all Possible ways.

35. What is the difference between a process and a daemon in Linux?
36. How can you find the IP address of a Linux system?
37. How do you set up a fixed IP address in Linux. explain with appropriate steps.
38. A user alice needs to run the yum package manager to install and remove software, but you want to restrict them from running other administrative commands like shutdown or reboot. How would you configure sudo to allow alice to run only yum commands without giving full root access?
39. You want to configure sudo so that the user anna can run the useradd command with sudo without being prompted for a password. How would you configure this?
40. Prevent anna from running other user management commands. use Command Alias.
41. How to check the installed software(rpm's) on Linux?
42. How to list the enabled repositories ?
43. How to know the particular files belongs to which package ?
44. How to remove the package using yum ?
45. Your organization wants to enhance the security of remote access to servers by disabling password-based SSH login and enforcing key-based authentication.  
  
Expalin with syntax and steps in detail.
46. How do you manage services on a system using systemd?
47. You need to copy an entire directory /etc/Backup and its contents from your local machine to a remote server. (compress the directory contents first – use tar)

48. How will you de-compress the directory Backup.tar in server . you need to decompress in /tmp folder.
49. You are not able to transfer files using ftp from local machine to remote server. What would be the possible causes of failure. How will you troubleshoot it. Provide syntax
50. After you reboot your machine, You find that httpd service is not running. what will you do to start the service immediately as well as ensure that it is running even after reboot.
51. There is a folder /data with below permissions. I want to restrict users from deleting any files from data directory. What should I do?

```
drwxrwxrwx. 3 root root 4096 Oct 17 07:07 data
```

52. Will you be able to cd into a directory with only read permission?