1) What is Linux?

Linux is a UNIX based operating system. Linus Torvalds first introduced it. It is an open source operating system that was designed to provide free and a low-cost operating system for the computer users.

2) What is the difference between UNIX and Linux?

UNIX was originally started as a propriety operating system for Bell Laboratories, which later release their commercial version while Linux is a free, open source and a non-propriety operating system for the mass uses.

3) What is Linux Kernel?

Linux Kernel is low-level system software. It is used to manage the hardware resources for the users. It provides an interface for user-level interaction.

### 4) Is it legal to edit Linux Kernel?

Yes. You can edit Linux Kernel because it is released under General Public License (GPL) and anyone can edit it. It comes under the category of free and open source software.

5) What is the advantage of open source?

Open source facilitates you to distribute your software, including source codes freely to anyone who is interested. So, you can add features and even debug and correct errors of the source code

6) What are the basic components of Linux?

Just like other operating systems, Linux has all components like kernel, shells, GUIs, system utilities and application programs.

7) What is the advantage of Linux?

Every aspect comes with additional features, and it provides a free downloading facility for all codes.

8) Define shell?

It is an interpreter in Linux.

9) Name some shells that are commonly used in Linux.

The most commonly used shells in Linux are bash, csh, ksh, bsh.

10) Name the Linux which is specially designed by the Sun Microsystems.

Solaris is the Linux of Sun Microsystems.

11) Name the Linux loader.

LILO is the Linux loader.

12) If you have saved a file in Linux. Later you wish to rename that file, what command is designed for it?

The **'mv'** command is used to rename a file.

13) Write about an internal command.

The commands which are built in the shells are called as the internal commands.

14) Define inode.?

Each file is given a unique name by the operating system which is called as the inode.

### 15) If the programmer wishes to execute an instruction at the specified time. Which command is used?

The **'at'** command is used for the same.

16) Name some Linux variants.

Some of the Linux commands are:

* CentOS
* Ubuntu
* Redhat
* Debian
* Fedora

### 17) What is BASH?

BASH is a short form of Bourne Again Shell. It was a replacement to the original Bourne shell, written by Steve Bourne.

18) What is a root account?

The root account is like a system administrator account. It provides you full control of the system. You can create and maintain user accounts, assign different permission for each account, etc.

19) What is CLI?

CLI stands for Command Line Interface. It is an interface that allows users to type declarative commands to instruct the computer to perform operations.

20) What is the GUI?

GUI stands for Graphical User Interface. It uses the images and the icons which are clicked by the users to communicate with the system. It is more attractive and user-friendly because of the use of the images and icons.

21) What are the basic commands for user management?

* last,
* chage,
* chsh,
* lsof,
* chown,
* chmod,
* useradd,
* userdel,
* newusers

22) What are the file permissions in Linux?

There are 3 types of permissions in Linux OS that are given below:

* **Read:** User can read the file and list the directory.
* **Write:** User can write new files in the directory .
* **Execute:** User can access and run the file in a directory.

23) How to exit from vi editors?

The following commands are used to exit from vi editors.

1. **:wq** saves the current work and exits the VI.
2. **:q!** exits the VI without saving current work.

24) How to delete information from a file in vi?

The following commands are used to delete information from vi editors.

1. **x** deletes a current character.
2. **dd** deletes the current line.

25) what are basic components of Linux?

* Kernel
* Shell
* GUI
* System Utilities
* Application programs

26) What are the shells used in Linux?

* Bash
* Korn Shell (ksh)
* C shell (csh)
* Z shell (Zsh)
* Friendly Interactive shell (Fish)

27) What are Linux directory commands?

* pwd
* ls
* cd
* mkdir
* rmdir

28) Explain Grep command?

Global Regular Expression Print (grep) it is used to search for a text in a file by matching based on regular expressions.

Command: grep (option) patter (files)

29) What is tar command?

The tar command is used to extract or create an archived file.

* tar cvf <name.tar> <files> ----- tar the file
* tar xvf <name.tar> -------- untar the file

30) Which commands are used to create files and directory?

* touch <filename> ---- to create files
* mkdir <dir name> ----- to create directory

31) Which commands used to delete the files?

* rm <filename> ---- to delete files
* rmdir <dir name> ---- to delete folder/directory
* rm -f <filename> ---- to delete files forcefully
* rm -rf <filename> ----- to delete directory forcefully

32). Which command used to print the content?

echo “Good Evening”

33) Which command used to print the content?

cat <filename>

34) Explain cat redirection operation?

There 2 ways in this

* cat > <filename> ------ It will overwrite the existing content
* cat >> <filename> ------ It will create new content along with old

35) How do you start and stop a service?

To start: $ service <servicename> start

To stop: $ service <servicename> start

36) Name important file management directories in Linux?

* **/bin** – binary or executable programs.
* **/etc** – system configuration files.
* **/home** – home directory.
* **/opt**– optional or third-party software.
* **/tmp** – temporary space, typically cleared on reboot.
* **/usr** – User related programs.
* **/var** – log files.