1. What are inode and process id?
   An inode is a data structure linux uses to store information about a file. Each inode has a unique id that identifies a individual file.
   To check inode : ls -il sample.txt
   mirror_sample.txt
   It'll show the different inode for original file and mirrored file.

2. Which are the Linux Directory Commands?

- pwd – present working directory
- cd – change directory
- mkdir – make directory
- rm – rf filename – to delete the file
- touch – to create file
- cat – to view content of the file
- head – to view top 10 lines of a file
- tail – to view last 10 lines from bottom of a file
- less – to open a new terminal to show the context of file
- hostname – shows the host name or IP address
- uname – shows which Operating system we are using
- uname -r – which version
- cd ~ - to home directory
- echo – to print the sentence
- ls – to see contents of folder

- ls – lrt – the listing is in order (Oldest to latest)
- vi filename – to write or fill information in file

3. What is Virtual Desktop?
Virtual desktops are multiple desktop areas. This is much like having multiple computers. Applications can be sorted by running them on separate desktop areas

4.Which are the different modes of vi editor?
Three important modes :

- Command mode
- Insert mode
- last line mode

5.What are daemons?
A daemon is also called background processes. It is a UNIX / Linux program that executes inside the background. Almost every daemon contains names that finish with "d" the letter. For example, sshd: this manages connections of SSH remote access.

6.What are the process states in Linux?
There are five Linux process states. They are as follows: running & runnable, interruptable sleep, uninterruptable sleep, stopped, and zombie.

- Uninterruptable sleep is a state where the process is waiting on something. Typically in this state,

interrupting could cause some major issues. For example if the network disconnected while this was being run at the right time, it could hang in this state, waiting for the network to return.

- Running & Runnable : Running is actively running and allocated to a CPU/CPU core. Whereas Runnable process is ready and lined up to be run, but for whatever reason, the CPU is not ready for it to be scheduled. Therefore it is queued up to be running.
- Interruptable Sleep : Going into this process state while waiting for input allows the process to take a back seat and give other processes CPU time. It will get to a point where it is waiting on data. This may be in the form of input from the terminal such as asking the user for input
- Stopped : Stopped process you might think of it more as a suspended process. In this state, the process is put on hold and not responsive.
- Zombie : In basic terms, this is an interim state after a process exits — but before its parent removes it from the process table. When a process terminates it is the responsibility of the parent to "reap" the child process and cleanup the process table.

7. Explain grep command.

Grep is a Linux command-line tool used to search for a string of characters in a specified file.
Few examples :
To view patterns : Grep apple file123.txt
It’ll view the word apple or a pattern from file123.txt
To search word : Grep -r mango
It’ll view the word mango
To view a specific word : Grep -wn apple file123.txt
It’ll view specific word like apple in file123.txt

9. Explain the ‘ls’ command
This command is used to list files in a directory without hidden files.
Ls -la : this command shows all the files including hidden
ls – lrt : this command shows files in an order from oldest to latest files.

10. Explain the redirection operator
Redirection can be defined as changing the way from where commands read input to where commands sends output.
Three standard streams :

- Standard input (Stdin)
- Standard output (Stdout)
- Standard error (Stderr)