1. What are inode and process id?

*An inode (short for "index node") is a data structure Linux uses to store information about a file. Each inode has a unique ID that identifies an individual file or other object in the Linux file system. Inodes contain the following information: File type - file, folder, executable program etc.
* A Process id is automatically assigned to each process when it is created. A process is nothing but running instance of a program and each process has a unique PID on a Unix-like system.

2. Which are the Linux Directory Commands?

The following are the linux directory commands:
**Pwd -stands for (print working directory). It displays the current working location or directory of the user.
**ls-The ls command is used to show the list of a folder. It will list out all the files in the directed folder.
**cd-The cd command stands for (change directory). It is used to change to the directory you want to work from the present directory.
**mkdir-With mkdir command we can create our own directory.
**rmdir-The rmdir command is used to remove a directory from your system.

3. What is Virtual Desktop?

A virtual desktop allows users to access their desktop and applications from anywhere on any kind of endpoint device.

4. Which are the different modes of vi editor?

***Command Mode:** When vi starts up, it is in Command Mode. This mode is where vi interprets any characters we type as commands and thus does not display them in the window.
***Insert mode:** This mode enables you to insert text into the file. Everything that's typed in this mode is interpreted as input and finally, it is put in the file. The vi always starts in command mode. To enter text, you must be in insert mode.
***Last Line Mode(Escape Mode):** Line Mode is invoked by typing a colon [:], while vi is in Command Mode. The cursor will jump to the last line of the screen and vi will wait for a command. This mode enables you to perform tasks such as saving files, executing commands.

5. What are daemons?

A daemon is a long-running background process that answers requests for services.Daemons perform certain actions at predefined times or in response to certain events. There are many daemons that run on a Linux system, each specifically designed to watch over its own little piece of the system.

6. What are the process states in Linux?

A process refers to a program in execution; it's a running instance of a program. It is made up of the program instruction, data read from files, other programs or input from a system user.

The following are the process states:

1. Running: This is a state where a process is either in running or ready to run.
2. Interruptible: This state is a blocked state of a process which awaits for an event or a signal from another process
3. Uninterruptible: It is also a blocked state. The process is forced to halt for certain condition that a hardware status is waited and a signal could not be handled.
4. Stopped: Once the process is completed, this state occurs. This process can be restarted
5. Zombie: In this state, the process will be terminated and the information will still be available in the process table.

7. Explain grep command.

Grep stands for global search for regular expression and print out.The grep filter searches a file for a particular pattern of characters, and displays all lines that contain that pattern. The pattern that is searched in the file is referred to as the regular expression.

8. Explain Process Management System Calls in Linux

Processes are the most fundamental abstraction in a Linux system, after files. As object code in execution - active, alive, running programs - processes are more than just assembly language; they consist of data, resources, state, and a virtualized computer.

Diffrent types of system calls are:

1. To create a new process – fork () is used.
2. To run a new program = exec () is used.
3. To make the process to wait = wait () is used.

4. To terminate the process – exit () is used.
5. To find the unique process id – getpid () is used.
6. To find the parent process id – getppid () is used.
7. To bias the currently running process property – nice () is used.

9. Explain the ‘ls’ command

The ls command is used to list files or directories in Linux and other Unix-based operating systems.

10. Explain the redirection operator

A redirection operator is a special character that can be used with a command, like a Command Prompt command or DOS command, to either redirect the input to the command or the output from the command.