**1.What is operating system?**

Operating System is an interface between user and computer hardware. It will handle file management, user management, disk partition and networking.

**2.Types of operating system.**

1. Windows
2. Linux
3. Ubuntu
4. Fedora
5. Redhat
6. Mac os
7. Blackberry
8. Kali Linux
9. Android

**3.Linux distribution**

1. Ubuntu
2. Redhat
3. Kali
4. Arch Linux
5. Fedora
6. Debian
7. Rocky Linux
8. SUSE Linux

**4.Explain about Linux**

Linux is an open-source operating system. Operating System is an interface between user and computer hardware.

* Linux was developed by **Linus Torvalds** in **1991. He created a free Operating System called Kernel.**
* **Linux operating system is a combination of Kernel and GNU software.**
* **It is written in C language.**

Structure of Linux

User Process

System

SoftwareeSo

Compiler

User Utility

System Libraries

Kernel

Kernel Modules

Hardware

I/O

RAM

CPU

**1. Kernel**

Linux kernel is the core part of the operating system. It establishes communication between devices and software.

**2. System Libraries**

System libraries are special programs that help in accessing the kernel's features.

**3.System Tools**

Linux OS has a set of utility tools, which are usually simple commands. With the help of commands, you can access your files, edit, and manipulate data in your directories or files, change the location of files, or anything.

**5.basic commands**

**1. mkdir -** This command is used to create directories.

Syntax – mkdir <directory name>

**2. ls** - This command lists out the directories / files which are created inside the

current working directory.

Syntax – ls

**3. cd** - This command is used to change the directory.

Syntax – cd <directory name>

**4. cd ..** - This command is used to go back to the previous working directory.

**5. pwd** - This command displays the current working directory.

**6. touch** - This command is used to create files.

Syntax – touch <filename>

**7. nano** - It is an editor used to add / modify the data in a file

Syntax – nano <filename>

**8. cat** - It is used to view the contents of a file.

Syntax – cat <filename>

cat > <filename> - To override the data

cat >> <filename> - To append the data