**Linux module: 6**

**Assignment**

**Que: Use ifconfig or IP to view and configure network interfaces.**

Ans:

**ifconfig**

This command can be used to configure or display network interface configuration information, or to assign an address to a network interface. It's also used to define the network address of each interface at system startup. However, the IP command has since replaced ifconfig.

**IP**

This command has many options, including finding your Linux IP address.

**Que: Use ping to test network connectivity.**

Ans:

* Open a Terminal window by pressing Ctrl + Alt + T.
* Enter the command ping -c 10 hostname.
* Replace hostname with the IP address or domain name you want to ping.
* The Terminal will display the ping results, including the round-trip time for each packet.

**Que: Understand basic firewall configuration using FIREWALL-CMD.**

Ans:

* Check the firewall's status: Use the sudo firewall-cmd --state command.
* Check the firewall's configuration: Use the firewall-cmd command to interact with the firewalld configuration.
* Open or close a port: Use the firewall-cmd --zone=public --add-port=8083/tcp --permanent command to open a port.
* Reload the firewall configuration: Use the firewall-cmd --reload command.

**Que: add ssh services in firewall.**

Ans: To add SSH services in a firewall,

* Log into SSH
* Check if the application port is defined as a service
* Whitelist the service permanently in the current zone
* Reload Firewalld to apply changes

**Que: Graphically manage the firewall.**

Ans:

* The Security Level Configuration Tool (system-config-securitylevel) is a graphical tool in Red Hat Enterprise Linux (RHEL) that can be used to configure a firewall. It uses a control panel interface to create broad iptables rules for a general-purpose firewall.
* To install the firewall-config GUI configuration tool:
* Open the Software Sources application by using the Super key and typing Software
* Type firewall in the search box
* Select the Firewall item from the search results
* Click the Install button

**Que: What is selinux security.**

Ans: Security-Enhanced Linux (SELinux) is a security module in the Linux kernel that adds an extra layer of security to Red Hat Enterprise Linux (RHEL) and CentOS.

**Que: How to set static IP in linux?**

Ans: To set a static IP address in linux, we can use the command line and also GUI tool.

* **Command-line:** use the ifconfig command to set the IP address. We can also use the nmcli command line tool to modify the network connection.
* **GUI tool:** Use the network manager text user interface to configure your network interface.