**Module 6- Linux server - Manage basic networking & Security**

**49. Use ifconfig or ip to view and configure network interfaces.**

**ANS: The ifconfig command is a traditional way to manage network interface however its considers deprecated on newer system and replaced by the ip command if it's available (ifconfig), interface enable ( ifconfig eth0 up), assign ip address an interface ( ifconfig eth0 192.168.1.100 netmask 255.255.255.0).**

**50. Use ping to test network connectivity.**

**ANS: The ping command is a simple and effective tool test network connectivity between your system and another host it works by sending ICMP echo request packets to the target and waits for echo reply packets,( ping options destinations), ( ping google.com), ( ping in ip address), ( ping -c 4 google.com).**

**51. Understand basic firewall configuration using FIREWALL-CMD.**

**ANS: firewall-cmd is a command-line tool in linux primarily used with firewalld to manage and configure the system's firewall settings it provides an easy way to control traffic by defining rules and zones dynamically, check firewall running ( systmectl status firewalld), ( systmectl strat firewalld), ( firewalld-cmd --state), ( systemctl enable firewalld).**

**52. Add ssh services in firewall**

**ANS: To ssh service to you can use the following steps, ( ufw allow ssh), ( ufw reload), ( firewall-cmd --permanet --add-service=ssh), ( firewall-cmd --reload), ( iptables -A INPUT -p tcp --dport 2222 -j ACCEPT), (netfilter-persistent save), verify the firewall ( ufw status), ( firewall-cmd --list-all), ( iptables -l -v).**

**53. Graphically manage firewall**

**ANS: To graphically manage a firewall you can use one of the following tools, ( apt install gufw), ( dnf install firewall-config), ( firewall-config), ( systemctl enable --now cockpit.socket).**

**54**

**55. What is selinux Security**

**ANS: ( SELinux) security-enhanced linux is a security architecture for linux system that control access to the system by enforcing mandatory access control ( MAC) policies, permissive, disabled, turned off, check selinux status ( sestatus) command use.**

**56. How to Set Static IP in Linux?**

**ANS: Setting a static ip address in linux depends on the distribution and the network mangement tool used, identify network interface, ( ip link), configure file, ( nano /etc/netplan/ 01-netcfg.yaml), ( netplan apply), ( ip addr show), ( nmcli device show), ( nmcli con up "enp0s3), and system restart, ( nmcli con mod "enp0s3" "192.168.1.100/24), add DNS server ( nameserver 8.8.8.8) verify ( ip addr show) , ( ip route show).**