**QUESTION 1:**

**A) Identifying the Network Interface Name**

We can tell that any interface that starts with the text “en” is an Ethernet network interface. If

you are dealing with a wireless network interface, the name would be prefixed with the text “wl“.

Commands:

**Iplink**: used to show the interface of the networks available.

**B) To setup the configuration of a network by defining its static IP address**

we need to list the files out of the config directory. We can use the ls command to list the files in the

“/etc/netplan/” directory.

To make change use

**sudo nano /etc/netplan/ 01-network-manager-all.yaml**

Using this file, we can control the behavior of our network interfaces.

**• network: –** When modifying a network interface’s behaviour, the file must

always start with “network:“.

**• version: –** Netplan requires you to specify what version of its configuration

markup that you are using.

**• ethernets: –** This block is where we define settings that will modify our ethernet

interfaces’ behavior.

**• ens33: –** Finally, you should see the name of your network interface. Settings

defined under this block only affects that device.

**• dhcp4: –** This option allows us to control whether Netplan will automatically

fetch an IP address from the router using the DHCP client.

**INTRO TO SAMBA:**

Samba is an open source implementation of the Server Message Block (SMB) protocol. It allows

the networking of Microsoft Windows®, Linux, UNIX, and other operating systems together,

enabling access to Windows-based file and printer shares. Samba's use of SMB allows it to

appear as a Windows server to Windows clients.

To install samba use the following command

**sudo apt install samba -y**

After Installation run the following command

sudo nano /etc/samba/smb.conf

create a configuration of a new server.

After completing the configuration run the following commands.

sudo service smbd start

sudo service nmbd start

3. Now create a directory that will be shared across platforms

mkdir /home/ayesha/sharingFolder

(Note: Please use your username file creating a directory. My username was Ayesha)

4. Now give permissions to the above directory named sharingFolder

chmod 777 /home/ayesha/sharingFolder

5. Now create a SAMBA side user to access the directory

sudo useradd user1

6. Now set SAMBA user password

Sudo ambpasswd –a user

Now Open Command Prompt In ur OS and run

Ping [your ip address]

Now exit and press WIN+R

In the box type

[\\[your](file:///\\[your) ip address]

The Directory that you created wil be showed.