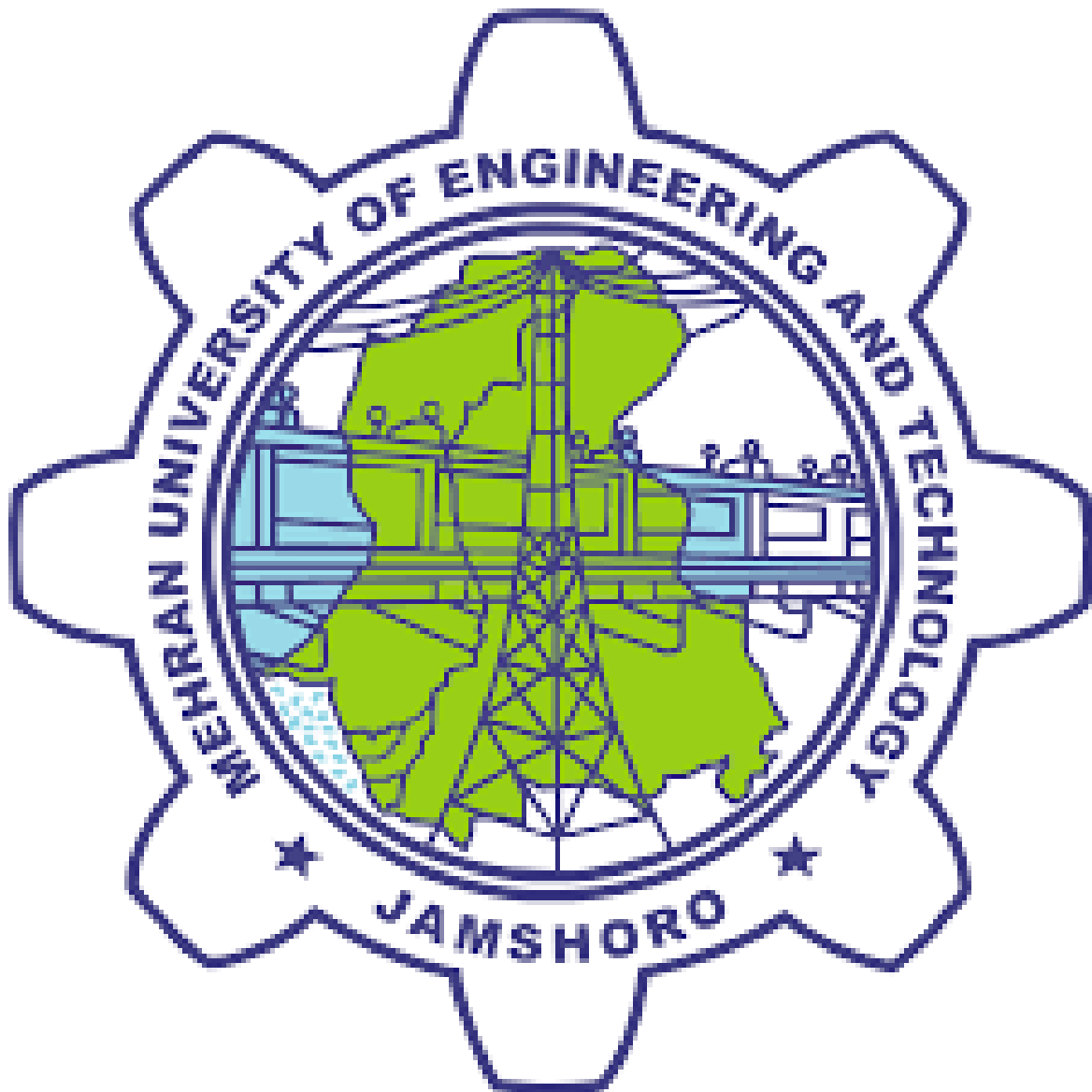Name: ZOHAIB HASSAN SOOMRO

RollNo#: 19SW42

Subject: CN(pr)

Q1: Execute the above mentioned commands and display the outputs.

1. Ipconfig


```
C:\Users\Zohaib Hassan Soomro>ipconfig

Windows IP Configuration


Ethernet adapter Ethernet:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . : muet.edu.pk

Wireless LAN adapter Local Area Connection* 4:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 14:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

C:\Users\Zohaib Hassan Soomro>
```

   a. Ipconfig/displaydns:


```
C:\WINDOWS\system32>ipconfig/displaydns

Windows IP Configuration

    myjdbcdriver
    ----------------------------------------
    Record Name . . . . . : myjdbcdriver
    Record Type . . . . . : 28
    Time To Live  . . . . : 0
    Data Length . . . . . : 16
    Section . . . . . . . : Answer
    AAAA Record . . . . . : ::1


    myjdbcdriver
    ----------------------------------------
    Record Name . . . . . : myjdbcdriver
    Record Type . . . . . : 1
    Time To Live  . . . . : 0
    Data Length . . . . . : 4
    Section . . . . . . . : Answer
    A (Host) Record . . . : 127.0.0.1


    1.0.0.127.in-addr.arpa
    ----------------------------------------
    Record Name . . . . . : 1.0.0.127.in-addr.arpa.
    Record Type . . . . . : 12
    Time To Live  . . . . : 0
    Data Length . . . . . : 8
    Section . . . . . . . : Answer
    PTR Record  . . . . . : localhost


    Record Name . . . . . : 1.0.0.127.in-addr.arpa.
    Record Type . . . . . : 12
    Time To Live  . . . . : 0
    Data Length . . . . . : 8
    Section . . . . . . . : Answer
    PTR Record  . . . . . : myjdbcdriver


    1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.ip6.arpa
    ----------------------------------------
    Record Name . . . . . : 1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.ip6.arpa.
    Record Type . . . . . : 12
```

2. Ping : PACKET INTERNET GOPHER:

```
C:\WINDOWS\system32>ping www.google.com

Pinging www.google.com [2a00:1450:4018:809::2004] with 32 bytes of data:
Reply from 2a00:1450:4018:809::2004: time=313ms
Reply from 2a00:1450:4018:809::2004: time=298ms
Reply from 2a00:1450:4018:809::2004: time=296ms
Reply from 2a00:1450:4018:809::2004: time=295ms

Ping statistics for 2a00:1450:4018:809::2004:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 295ms, Maximum = 313ms, Average = 300ms

C:\WINDOWS\system32>
```

3. Tracert:

```
C:\WINDOWS\system32>tracert www.google.com

Tracing route to www.google.com [2a00:1450:4018:809::2004]
over a maximum of 30 hops:

  1     3 ms     4 ms     3 ms  2400:fc00:9bf:8013::1
  2     6 ms     2 ms     3 ms  2400:fc00:9bf:8001::1
  3     3 ms     2 ms     3 ms  2400:fc00:9bf:8000::1
  4     7 ms     3 ms     3 ms  2400:fc00:8000:2a0::1
  5    14 ms    26 ms     7 ms  2400:fc00:8000::305:2
  6     9 ms     5 ms     6 ms  2404:d400:4000:3::5
  7     7 ms     7 ms     6 ms  2404:d400:0:34::10
  8   452 ms   315 ms   326 ms  2001:4860:1:1::e8c
  9   687 ms   324 ms   319 ms  2001:4860:0:109a::1
 10   454 ms   319 ms   320 ms  2001:4860:0:1::3991
 11   437 ms   328 ms   322 ms  mct01s19-in-x04.1e100.net [2a00:1450:4018:809::2004]

Trace complete.

C:\WINDOWS\system32>
```

4. Arp-a:

```
C:\WINDOWS\system32>arp -a

Interface: 10.11.61.62 --- 0x13
  Internet Address      Physical Address      Type
  10.11.60.1            28-a6-db-40-6c-fb     dynamic
  10.11.63.255          ff-ff-ff-ff-ff-ff     static
  224.0.0.2             01-00-5e-00-00-02     static
  224.0.0.22            01-00-5e-00-00-16     static
  224.0.0.251           01-00-5e-00-00-fb     static
  224.0.0.252           01-00-5e-00-00-fc     static
  239.255.255.250       01-00-5e-7f-ff-fa     static
  255.255.255.255       ff-ff-ff-ff-ff-ff     static

C:\WINDOWS\system32>
```

Q2: Find and explain a network command that changes the ipaddress of your computer from your command prompt. Change the ipaddress and display the output.

Ans:

Netsh:

The netsh command allows us to configure just about any aspect of network connections in Windows e.g changing ip/dns settings etc. To work with it, we'll need to open Command Prompt with administrative privileges.

Step-1: Know the full name of network (for the interface we want to change):

Initial IP-address

Step-2: Change ip-address(to a static ip in our case), subnet mask and default gateway:

After changing IP-address: