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Registration ID: 201977

Subject: Computer Network Lab

Submitted To: Sir Adnan Shah

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LAB MID TERM:

IP ADDRESSING

Question 1: Calculate Ip Addresses.


- $1 * 201975 \% 200. 1 * 201975 \% 200. 1 * 201975 \% 100. 1 * 201975 \% 100 = 175.175.75.75$
- $2 * 201976 \% 200. 2 * 201976 \% 200. 2 * 201976 \% 100. 2 * 201976 \% 100 = 152.152.52.52$
- $3 * 201977 \% 200. 3 * 201977 \% 200. 3 * 201977 \% 100. 3 * 201977 \% 100 = 131.131.31.31$
- $4 * 201910 \% 200. 4 * 201910 \% 200. 4 * 201910 \% 100. 4 * 201910 \% 100 = 40.40.40.40$
- $5 * 201920 \% 200. 5 * 201920 \% 200. 5 * 201920 \% 100. 5 * 201920 \% 100 = 0.0.0.0$

IP ADDRESS	CLASS	USAGE	STATUS	TYPE
175.175.75.75	B	PUBLIC	NOT RESERVED	VALID
152.152.52.52	B	PUBLIC	NOT RESERVED	VALID
131.131.31.31	B	PUBLIC	NOT RESERVED	VALID
40.40.40.40	A	PUBLIC	NOT RESERVED	VALID
0.0.0.0	A	PUBLIC	RESERVED	INVALID

Question 2:

NET USER:

- 1) For Creating User and Assigning Time
- 2) For Creating Local group
- 3) For adding user to the local group
- 4) For displaying user information

 Administrator: Command Prompt

```
C:\Windows\system32> net user examhamza201977 123 /add
The command completed successfully.
```


```
C:\Windows\system32> net user
```

```
User accounts for \\DESKTOP-GMP7L0D
```

```
-----
Administrator          DefaultAccount          examhamza201977
Guest                   HamzaxD                 WDAGUtilityAccount
The command completed successfully.
```

```
C:\Windows\system32> net user examhamza201977 /time:M-F,11AM-5PM
The command completed successfully.
```

```
C:\Windows\system32>
```

 Administrator: Command Prompt

```
C:\Windows\system32> net localgroup examlocalgroup201977 /add
The command completed successfully.
```

```
C:\Windows\system32>
```

C:\> Administrator: Command Prompt

```
C:\Windows\system32> net localgroup examlocalgroup201977 examhamza201977 /add
The command completed successfully.
```

```
C:\Windows\system32>
```

C:\> Administrator: Command Prompt

```
C:\Windows\system32> net user examhamza201977
User name                examhamza201977
Full Name
Comment
User's comment
Country/region code      000 (System Default)
Account active           Yes
Account expires          Never

Password last set        11/2/2021 9:14:52 AM
Password expires         12/14/2021 9:14:52 AM
Password changeable      11/2/2021 9:14:52 AM
Password required        Yes
User may change password Yes

Workstations allowed     All
Logon script
User profile
Home directory
Last logon               Never

Logon hours allowed      Monday 11:00:00 AM - 5:00:00 PM
                        Tuesday 11:00:00 AM - 5:00:00 PM
                        Wednesday 11:00:00 AM - 5:00:00 PM
                        Thursday 11:00:00 AM - 5:00:00 PM
                        Friday 11:00:00 AM - 5:00:00 PM

Local Group Memberships  *examlocalgroup201977 *Users
Global Group memberships *None
The command completed successfully.
```

```
C:\Windows\system32>_
```

Question 3:

TASK 1: ROUTE

C:\> Administrator: Command Prompt

```
C:\Windows\system32> route print
```

Interface List

```
14...8c 16 45 fc da bc .....Intel(R) Ethernet Connection (4) I219-LM
2...a0 a4 c5 97 1d 29 .....Microsoft Wi-Fi Direct Virtual Adapter
20...a2 a4 c5 97 1d 28 .....Microsoft Wi-Fi Direct Virtual Adapter #2
9...00 50 56 c0 00 01 .....VMware Virtual Ethernet Adapter for VMnet1
19...00 50 56 c0 00 08 .....VMware Virtual Ethernet Adapter for VMnet8
17...a0 a4 c5 97 1d 28 .....Intel(R) Dual Band Wireless-AC 8265
1.....Software Loopback Interface 1
```

IPv4 Route Table

Active Routes:

Network	Destination	Netmask	Gateway	Interface	Metric
0.0.0.0	0.0.0.0	0.0.0.0	10.120.140.5	10.120.140.153	50
10.120.140.0	255.255.252.0		On-link	10.120.140.153	306
10.120.140.153	255.255.255.255		On-link	10.120.140.153	306
10.120.143.255	255.255.255.255		On-link	10.120.140.153	306
127.0.0.0	255.0.0.0		On-link	127.0.0.1	331
127.0.0.1	255.255.255.255		On-link	127.0.0.1	331
127.255.255.255	255.255.255.255		On-link	127.0.0.1	331
192.168.91.0	255.255.255.0		On-link	192.168.91.1	291
192.168.91.1	255.255.255.255		On-link	192.168.91.1	291
192.168.91.255	255.255.255.255		On-link	192.168.91.1	291
192.168.119.0	255.255.255.0		On-link	192.168.119.1	291
192.168.119.1	255.255.255.255		On-link	192.168.119.1	291
192.168.119.255	255.255.255.255		On-link	192.168.119.1	291
216.58.208.78	255.255.255.255		10.120.140.5	10.120.140.153	75
224.0.0.0	240.0.0.0		On-link	127.0.0.1	331
224.0.0.0	240.0.0.0		On-link	10.120.140.153	306
224.0.0.0	240.0.0.0		On-link	192.168.119.1	291
224.0.0.0	240.0.0.0		On-link	192.168.91.1	291
255.255.255.255	255.255.255.255		On-link	127.0.0.1	331
255.255.255.255	255.255.255.255		On-link	10.120.140.153	306
255.255.255.255	255.255.255.255		On-link	192.168.119.1	291
255.255.255.255	255.255.255.255		On-link	192.168.91.1	291

Persistent Routes:

None

IPv6 Route Table

Active Routes:

If	Metric	Network	Destination	Gateway
1	331	::1/128		On-link
17	306	fe80::/64		On-link
19	291	fe80::/64		On-link
9	291	fe80::/64		On-link
19	291	fe80::d5a2:b2e7:1d6:f6e4/128		On-link
17	306	fe80::e167:ae28:f55a:8e23/128		On-link

c:\ Administrator: Command Prompt

C:\Windows\system32>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

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

Wireless LAN adapter Local Area Connection* 1:

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

Wireless LAN adapter Local Area Connection* 10:

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

Ethernet adapter VMware Network Adapter VMnet1:

Connection-specific DNS Suffix . :
Link-local IPv6 Address : fe80::f0e9:d20c:c545:63a6%9
IPv4 Address. : 192.168.91.1
Subnet Mask : 255.255.255.0
Default Gateway :

Ethernet adapter VMware Network Adapter VMnet8:

Connection-specific DNS Suffix . :
Link-local IPv6 Address : fe80::d5a2:b2e7:1d6:f6e4%19
IPv4 Address. : 192.168.119.1
Subnet Mask : 255.255.255.0
Default Gateway :

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . :
Link-local IPv6 Address : fe80::e167:ae28:f55a:8e23%17
IPv4 Address. : 10.120.140.153
Subnet Mask : 255.255.252.0
Default Gateway : 10.120.140.5

C:\Windows\system32>

04. Select Administrator: Command Prompt

```
C:\Windows\system32> ping Google.com

Pinging Google.com [216.58.208.78] with 32 bytes of data:
Reply from 216.58.208.78: bytes=32 time=52ms TTL=115
Reply from 216.58.208.78: bytes=32 time=51ms TTL=115
Reply from 216.58.208.78: bytes=32 time=47ms TTL=115
Reply from 216.58.208.78: bytes=32 time=47ms TTL=115

Ping statistics for 216.58.208.78:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 47ms, Maximum = 52ms, Average = 49ms

C:\Windows\system32>
```

04. Administrator: Command Prompt

```
C:\Windows\system32> route add 216.58.208.78 10.120.140.5 metric 25
OK!

C:\Windows\system32>
```

04. Select Administrator: Command Prompt

```
=====
Active Routes:
Network Destination     Netmask          Gateway          Interface        Metric
0.0.0.0                 0.0.0.0          10.120.140.5    10.120.140.153   50
10.120.140.0            255.255.252.0    On-link         10.120.140.153   306
10.120.140.153          255.255.255.255  On-link         10.120.140.153   306
10.120.143.255          255.255.255.255  On-link         10.120.140.153   306
127.0.0.0               255.0.0.0        On-link         127.0.0.1        331
127.0.0.1               255.255.255.255  On-link         127.0.0.1        331
127.255.255.255         255.255.255.255  On-link         127.0.0.1        331
192.168.91.0            255.255.255.0    On-link         192.168.91.1     291
192.168.91.1            255.255.255.255  On-link         192.168.91.1     291
192.168.91.255          255.255.255.255  On-link         192.168.91.1     291
192.168.119.0           255.255.255.0    On-link         192.168.119.1    291
192.168.119.1           255.255.255.255  On-link         192.168.119.1    291
192.168.119.255         255.255.255.255  On-link         192.168.119.1    291
216.58.208.78           255.255.255.255  10.120.140.5    10.120.140.153   75
224.0.0.0               240.0.0.0        On-link         127.0.0.1        331
224.0.0.0               240.0.0.0        On-link         10.120.140.153   306
224.0.0.0               240.0.0.0        On-link         192.168.119.1    291
224.0.0.0               240.0.0.0        On-link         192.168.91.1     291
255.255.255.255         255.255.255.255  On-link         127.0.0.1        331
255.255.255.255         255.255.255.255  On-link         10.120.140.153   306
255.255.255.255         255.255.255.255  On-link         192.168.119.1    291
255.255.255.255         255.255.255.255  On-link         192.168.91.1     291
=====
Persistent Routes:
None

IPv6 Route Table
=====
Active Routes:
If Metric Network Destination Gateway
1 331 ::1/128 On-link
17 306 fe80::/64 On-link
19 291 fe80::/64 On-link
9 291 fe80::/64 On-link
19 291 fe80::d5a2:b2e7:1d6:f6e4/128 On-link
17 306 fe80::e167:ae28:f55a:8e23/128 On-link
9 291 fe80::f0e9:d20c:c545:63a6/128 On-link
1 331 ff00::/8 On-link
17 306 ff00::/8 On-link
19 291 ff00::/8 On-link
9 291 ff00::/8 On-link
=====
Persistent Routes:
None

C:\Windows\system32>
```

TASK 2: NETSHARE

Administrator: Command Prompt

```
C:\Windows\system32> netsh interface ip show tcpconnections
```

MIB-II TCP Connection Entry

Local Address	Local Port	Remote Address	Remote Port	State
0.0.0.0	135	0.0.0.0	0	Listen
10.120.140.153	139	0.0.0.0	0	Listen
192.168.91.1	139	0.0.0.0	0	Listen
192.168.119.1	139	0.0.0.0	0	Listen
0.0.0.0	443	0.0.0.0	0	Listen
0.0.0.0	623	0.0.0.0	0	Listen
0.0.0.0	902	0.0.0.0	0	Listen
0.0.0.0	912	0.0.0.0	0	Listen
0.0.0.0	5040	0.0.0.0	0	Listen
127.0.0.1	5939	0.0.0.0	0	Listen
127.0.0.1	8307	0.0.0.0	0	Listen
0.0.0.0	16992	0.0.0.0	0	Listen
0.0.0.0	27036	0.0.0.0	0	Listen
127.0.0.1	27060	0.0.0.0	0	Listen
10.120.140.153	49197	162.254.196.84	27023	Established
10.120.140.153	49210	13.107.136.254	443	Established
10.120.140.153	49407	151.101.1.44	443	Established
127.0.0.1	49418	0.0.0.0	0	Listen
10.120.140.153	49451	185.184.10.30	443	Established
10.120.140.153	49470	142.250.185.51	443	Established
10.120.140.153	49515	216.58.208.78	443	Established
10.120.140.153	49529	216.58.208.67	443	Established
10.120.140.153	49530	142.250.185.46	443	Established
10.120.140.153	49532	3.231.185.193	443	Close Wait
10.120.140.153	49533	52.182.143.210	443	Time Wait
10.120.140.153	49534	104.26.10.209	443	Established
10.120.140.153	49541	142.250.180.46	443	Established
10.120.140.153	49542	142.250.185.42	443	Established
10.120.140.153	49543	142.250.180.33	443	Established
10.120.140.153	49546	216.58.210.78	443	Established
10.120.140.153	49547	142.250.185.42	443	Established
10.120.140.153	49548	216.58.209.138	443	Established
10.120.140.153	49549	142.250.185.42	443	Established
10.120.140.153	49550	142.250.185.46	443	Established
10.120.140.153	49551	216.58.209.142	443	Established
10.120.140.153	49552	216.58.209.142	443	Established
0.0.0.0	49664	0.0.0.0	0	Listen
0.0.0.0	49665	0.0.0.0	0	Listen
0.0.0.0	49666	0.0.0.0	0	Listen
0.0.0.0	49667	0.0.0.0	0	Listen
0.0.0.0	49668	0.0.0.0	0	Listen
0.0.0.0	49685	0.0.0.0	0	Listen
10.120.140.153	63968	20.198.162.78	443	Established
127.0.0.1	63989	127.0.0.1	63990	Established

C:\> Select Administrator: Command Prompt

10.120.140.153	49543	142.250.180.33	443	Established
10.120.140.153	49546	216.58.210.78	443	Established
10.120.140.153	49547	142.250.185.42	443	Established
10.120.140.153	49548	216.58.209.138	443	Established
10.120.140.153	49549	142.250.185.42	443	Established
10.120.140.153	49550	142.250.185.46	443	Established
10.120.140.153	49551	216.58.209.142	443	Established
10.120.140.153	49552	216.58.209.142	443	Established
0.0.0.0	49664	0.0.0.0	0	Listen
0.0.0.0	49665	0.0.0.0	0	Listen
0.0.0.0	49666	0.0.0.0	0	Listen
0.0.0.0	49667	0.0.0.0	0	Listen
0.0.0.0	49668	0.0.0.0	0	Listen
0.0.0.0	49685	0.0.0.0	0	Listen
10.120.140.153	63968	20.198.162.78	443	Established
127.0.0.1	63989	127.0.0.1	63990	Established
127.0.0.1	63990	127.0.0.1	63989	Established
10.120.140.153	64030	52.205.225.16	443	Close Wait
10.120.140.153	64044	3.209.95.43	443	Close Wait
10.120.140.153	64068	3.209.55.121	443	Established
10.120.140.153	64073	34.203.127.195	443	Established
10.120.140.153	64191	23.54.90.8	443	Close Wait
10.120.140.153	64192	23.54.90.8	443	Close Wait
10.120.140.153	64198	93.184.220.29	80	Close Wait
10.120.140.153	64213	23.215.197.169	80	Close Wait
10.120.140.153	64214	23.215.197.169	80	Close Wait
10.120.140.153	64215	23.215.197.169	80	Close Wait
10.120.140.153	64216	23.215.197.169	80	Close Wait
10.120.140.153	64217	23.215.197.169	80	Close Wait
10.120.140.153	64218	23.215.197.169	80	Close Wait
10.120.140.153	64219	59.103.129.80	443	Close Wait
10.120.140.153	64220	59.103.129.80	443	Close Wait
10.120.140.153	64247	52.139.174.67	443	Close Wait
10.120.140.153	64249	35.172.160.140	443	Close Wait
10.120.140.153	64252	20.198.162.76	443	Established
10.120.140.153	64559	142.250.102.188	5228	Established
10.120.140.153	64561	216.58.208.74	443	Established
10.120.140.153	64562	216.58.208.74	443	Established
10.120.140.153	64860	142.250.102.188	5228	Established
0.0.0.0	445	0.0.0.0	0	Listen
0.0.0.0	5357	0.0.0.0	0	Listen
0.0.0.0	35783	0.0.0.0	0	Listen

C:\Windows\system32>

Administrator: Command Prompt

```
C:\Windows\system32> netsh interface ip show udpconnections
```

MIB-II UDP Listener Entry

Local Address	LocalPort
10.120.140.153	137
192.168.91.1	137
192.168.119.1	137
10.120.140.153	138
192.168.91.1	138
192.168.119.1	138
0.0.0.0	500
10.120.140.153	1900
127.0.0.1	1900
192.168.91.1	1900
192.168.119.1	1900
10.120.140.153	2177
192.168.91.1	2177
192.168.119.1	2177
0.0.0.0	3702
0.0.0.0	3702
0.0.0.0	4500
0.0.0.0	5050
0.0.0.0	5353
0.0.0.0	5353
0.0.0.0	5353
0.0.0.0	5353
192.168.91.1	5353
192.168.100.211	5353
192.168.119.1	5353
0.0.0.0	5355
0.0.0.0	27036
0.0.0.0	53162
0.0.0.0	53910
0.0.0.0	54153
0.0.0.0	54511
192.168.91.1	54591
192.168.119.1	54592
10.120.140.153	54593
127.0.0.1	54594
0.0.0.0	58045
0.0.0.0	58292
0.0.0.0	59202
0.0.0.0	61718
127.0.0.1	62263
0.0.0.0	5353
0.0.0.0	5353
0.0.0.0	5353

Administrator: Command Prompt

```
C:\Windows\system32> netsh interface ip show config

Configuration for interface "Ethernet"
    DHCP enabled:                Yes
    InterfaceMetric:             5
    DNS servers configured through DHCP: 192.168.100.1
    Register with which suffix:   Primary only
    WINS servers configured through DHCP: None

Configuration for interface "Local Area Connection* 1"
    DHCP enabled:                Yes
    InterfaceMetric:             25
    DNS servers configured through DHCP: None
    Register with which suffix:   Primary only
    WINS servers configured through DHCP: None

Configuration for interface "Local Area Connection* 10"
    DHCP enabled:                Yes
    InterfaceMetric:             25
    DNS servers configured through DHCP: None
    Register with which suffix:   Primary only
    WINS servers configured through DHCP: None

Configuration for interface "VMware Network Adapter VMnet1"
    DHCP enabled:                Yes
    IP Address:                  192.168.91.1
    Subnet Prefix:                192.168.91.0/24 (mask 255.255.255.0)
    InterfaceMetric:             35
    DNS servers configured through DHCP: None
    Register with which suffix:   Primary only
    WINS servers configured through DHCP: None

Configuration for interface "VMware Network Adapter VMnet8"
    DHCP enabled:                Yes
    IP Address:                  192.168.119.1
    Subnet Prefix:                192.168.119.0/24 (mask 255.255.255.0)
    InterfaceMetric:             35
    DNS servers configured through DHCP: None
    Register with which suffix:   Primary only
    WINS servers configured through DHCP: 192.168.119.2

Configuration for interface "Wi-Fi"
    DHCP enabled:                Yes
    IP Address:                  10.120.140.153
    Subnet Prefix:                10.120.140.0/22 (mask 255.255.252.0)
    Default Gateway:             10.120.140.5
    Gateway Metric:              0
    InterfaceMetric:             50
    DNS servers configured through DHCP: 8.8.8.8
    Register with which suffix:   Primary only
    WINS servers configured through DHCP: None
```
