1. a)

Link-local IPv6 Address: fe80::7012:8890:7fb2:dd10%11(Preferred)

IPv4 Address: 192.168.16.106(Preferred)

b) Physical Address: 10-02-B5-86-57-9F

```
Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . : BlinkAP
   Description . . . . . . . . . . . : Intel(R) Dual Band Wireless-AC 7265
   Physical Address. . . . . . . . . : 10-02-B5-86-57-9F
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   Link-local IPv6 Address . . . . . : fe80::7012:8890:7fb2:dd10%11(Preferred)
   IPv4 Address. . . . . . . . . . . : 192.168.16.106(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Lease Obtained. . . . . . . . . . : Tuesday, October 13, 2020 3:37:02 PM
   Lease Expires . . . . . . . . . . : Tuesday, October 13, 2020 10:59:45 PM
   Default Gateway . . . . . . . . . : 192.168.16.1
   DHCP Server . . . . . . . . . . . : 192.168.16.1
   DHCPv6 IAID . . . . . . . . . . . : 168821429
   DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-25-18-30-2D-9C-5C-8E-34-E5-A9
   DNS Servers . . . . . . . . . . . : 192.168.16.1
   NetBIOS over Tcpip. . . . . . . . : Enabled
```

```
C:\Users\Alex>tracert

Usage: tracert [-d] [-h maximum_hops] [-j host-list] [-w timeout]
               [-R] [-S srcaddr] [-4] [-6] target_name

Options:
    -d                 Do not resolve addresses to hostnames.
    -h maximum_hops    Maximum number of hops to search for target.
    -j host-list       Loose source route along host-list (IPv4-only).
    -w timeout         Wait timeout milliseconds for each reply.
    -R                 Trace round-trip path (IPv6-only).
    -S srcaddr         Source address to use (IPv6-only).
    -4                 Force using IPv4.
    -6                 Force using IPv6.
```

```
C:\Users\Alex>ping youtube.com

Pinging youtube.com [172.217.22.14] with 32 bytes of data:
Reply from 172.217.22.14: bytes=32 time=35ms TTL=116
Reply from 172.217.22.14: bytes=32 time=34ms TTL=116
Reply from 172.217.22.14: bytes=32 time=35ms TTL=116
Reply from 172.217.22.14: bytes=32 time=33ms TTL=116

Ping statistics for 172.217.22.14:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 33ms, Maximum = 35ms, Average = 34ms
```

```
C:\Users\Alex>netstat youtube.com

Displays protocol statistics and current TCP/IP network connections.

NETSTAT [-a] [-b] [-e] [-f] [-n] [-o] [-p proto] [-r] [-s] [-x] [-t] [interval]

  -a            Displays all connections and listening ports.
  -b            Displays the executable involved in creating each connection or
                listening port. In some cases well-known executables host
                multiple independent components, and in these cases the
                sequence of components involved in creating the connection
                or listening port is displayed. In this case the executable
                name is in [] at the bottom, on top is the component it called,
                and so forth until TCP/IP was reached. Note that this option
                can be time-consuming and will fail unless you have sufficient
                permissions.
  -e            Displays Ethernet statistics. This may be combined with the -s
                option.
  -f            Displays Fully Qualified Domain Names (FQDN) for foreign
                addresses.
  -n            Displays addresses and port numbers in numerical form.
  -o            Displays the owning process ID associated with each connection.
  -p proto      Shows connections for the protocol specified by proto; proto
                may be any of: TCP, UDP, TCPv6, or UDPv6.  If used with the -s
                option to display per-protocol statistics, proto may be any of:
                IP, IPv6, ICMP, ICMPv6, TCP, TCPv6, UDP, or UDPv6.
  -q            Displays all connections, listening ports, and bound
                nonlistening TCP ports. Bound nonlistening ports may or may not
                be associated with an active connection.
  -r            Displays the routing table.
  -s            Displays per-protocol statistics.  By default, statistics are
                shown for IP, IPv6, ICMP, ICMPv6, TCP, TCPv6, UDP, and UDPv6;
                the -p option may be used to specify a subset of the default.
  -t            Displays the current connection offload state.
  -x            Displays NetworkDirect connections, listeners, and shared
                endpoints.
  -y            Displays the TCP connection template for all connections.
                Cannot be combined with the other options.
  interval      Redisplays selected statistics, pausing interval seconds
                between each display.  Press CTRL+C to stop redisplaying
                statistics.  If omitted, netstat will print the current
                configuration information once.
```

2.

a)

Microsoft Teams (32 bit)	0%	202.7 MB	0 MB/s	0 Mbps	0%	Very low	Very low
Microsoft Teams (32 bit)	0%	139.6 MB	0 MB/s	0 Mbps	0%	Very low	Very low
Google Chrome	0.1%	120.0 MB	0 MB/s	0 Mbps	0%	Very low	Very low

b)

Service Host: SysMain	0%	77.8 MB	0 MB/s	0 Mbps	0%		Very low	Very low
Windows Explorer	0%	39.9 MB	0 MB/s	0 Mbps	0%		Very low	Low
Desktop Window Manager	1.9%	32.1 MB	0 MB/s	0 Mbps	0.1%	GPU 0 - 3D	Low	Very low

c)

Google Chrome (6)	0%	154.7 MB	0.1 MB/s	0 Mbps	0%		Very low	Very low
Microsoft Teams (32 bit) (5)	0%	98.1 MB	0 MB/s	0 Mbps	0%	GPU 0 - 3D	Very low	Very low
Microsoft Word (32 bit)	0%	49.5 MB	0 MB/s	0 Mbps	0%		Very low	Very low

d)CPU

Utilization	Speed		Base speed:	2.59 GHz
12%	3.40 GHz		Sockets:	1
Processes	Threads	Handles	Cores:	4
189	2423	122248	Logical processors:	8
			Virtualization:	Enabled
Up time			L1 cache:	256 KB
1:10:21:24			L2 cache:	1.0 MB
			L3 cache:	6.0 MB

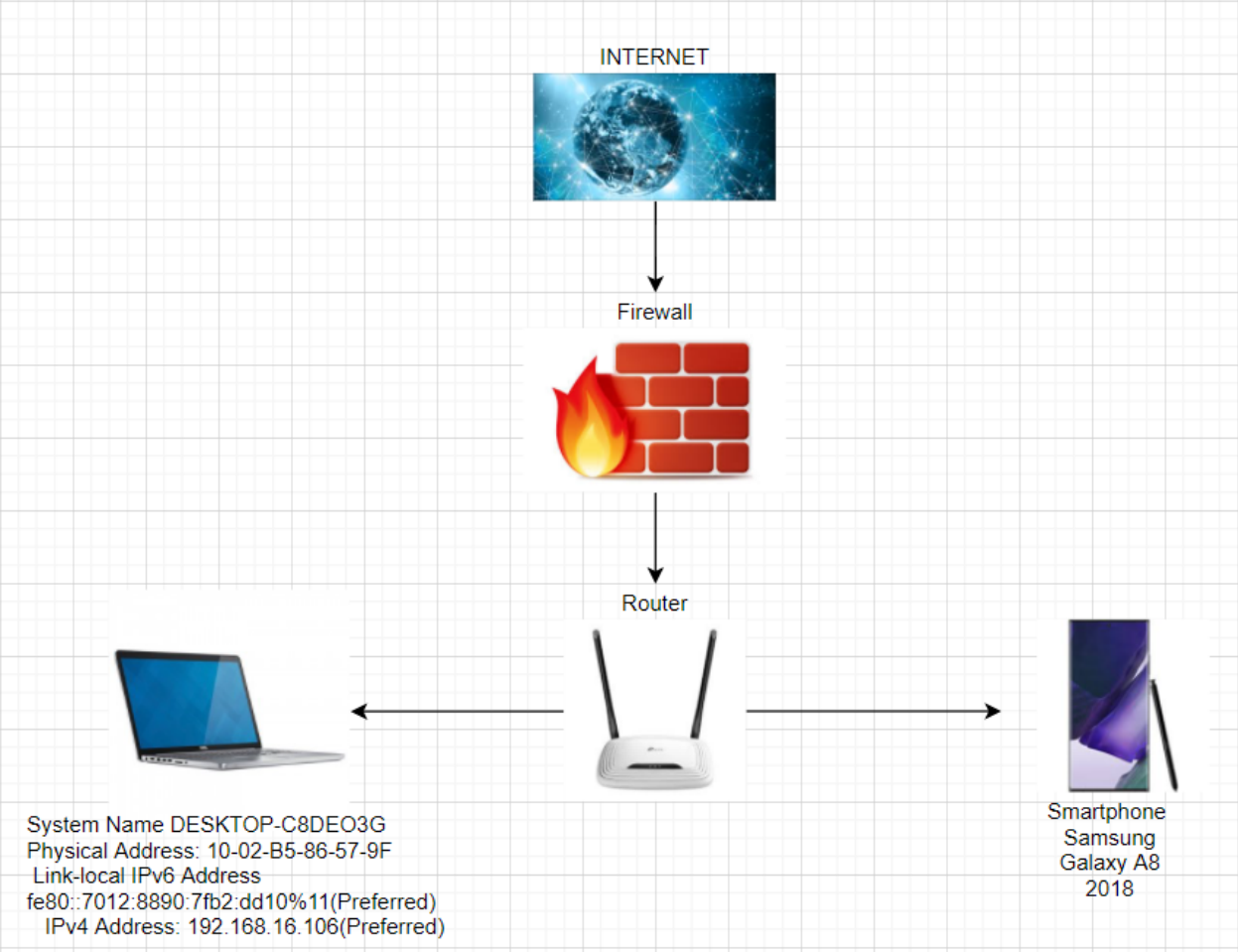
Memorie

In use (Compressed)	Available	Speed:	1600 MHz
4.5 GB (684 MB)	3.3 GB	Slots used:	1 of 4
		Form factor:	SODIMM
Committed	Cached	Hardware reserved:	111 MB
6.8/9.1 GB	3.3 GB		
Paged pool	Non-paged pool		
447 MB	323 MB		

d) Conexiuni

Send	Adapter name:	Wi-Fi
0 Kbps	SSID:	camera_309
	DNS name:	BlinkAP
Receive	Connection type:	802.11n
0 Kbps	IPv4 address:	192.168.16.106
	IPv6 address:	fe80::7012:8890:7fb2:dd10%11
	Signal strength:	

3.



4.1.

56kbps(modem): 15360000/56000=274,285

1Mbps(modem): 15360000 /1000000=15,36

10Mbps(Ethernet): 15360000 /10000000=1,536

100Mbps(Ethernet): 15360000 /100000000=0,1536

1 gigabit: 15360000/1000000000=0,01536