Assignment -I

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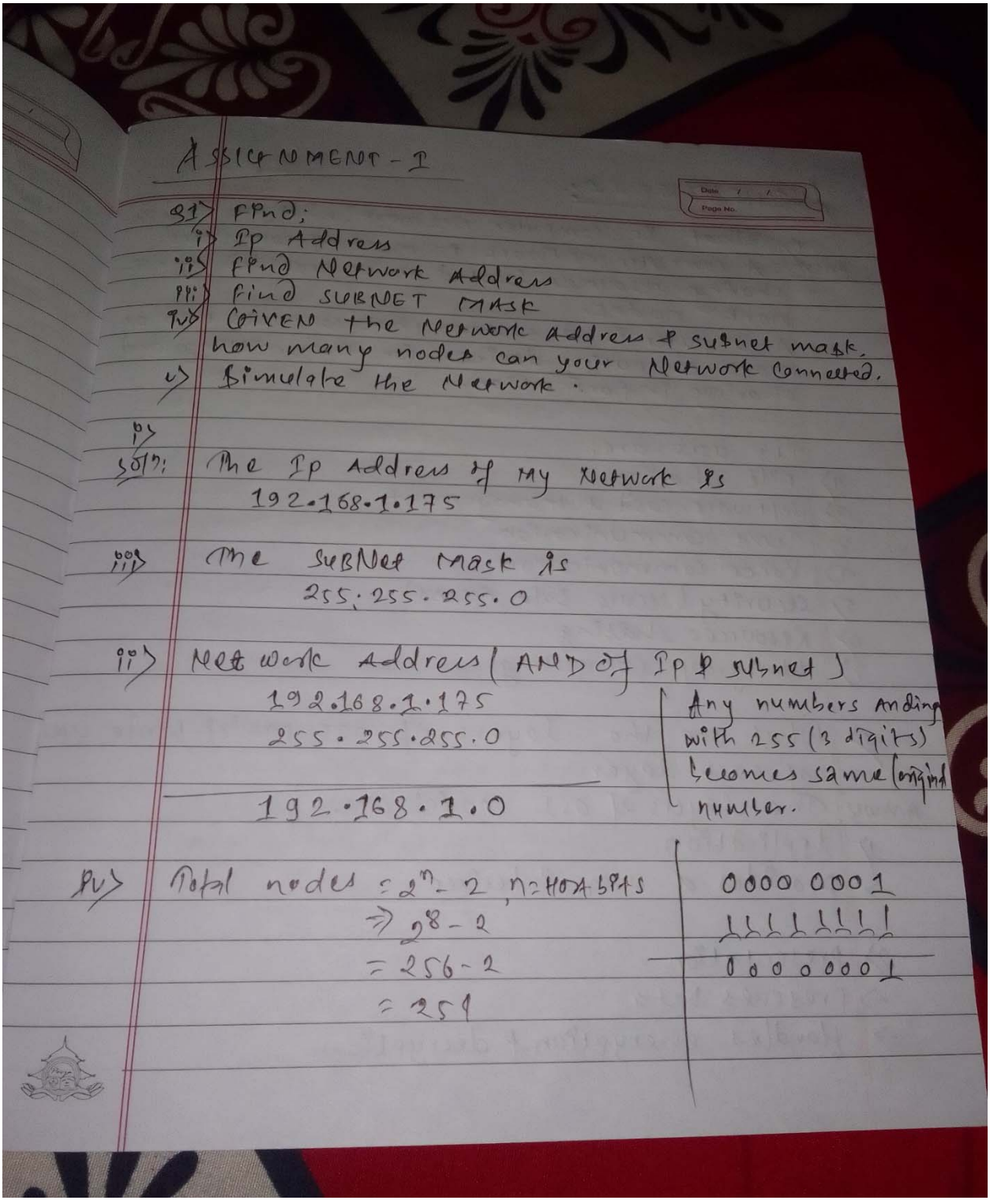

ASSIGNMENT - I

Q1) Find;
i) Ip Address
ii) Find Network Address
iii) Find SUBNET MASK
iv) GIVEN the Network Address & subnet mask, how many nodes can your Network connected.
v) Simulate the Network.

i)

Sol'n: The Ip Address of my Network is
192.168.1.175

iii) The SubNet Mask is
255.255.255.0

ii) Network Address (AND of Ip & subnet)
192.168.1.175
255.255.255.0
192.168.1.0

Any numbers anding with 255 (3 digits) becomes same (original number.

iv) Total nodes $= 2^n - 2$, n = HOST BITS
$\Rightarrow 2^8 - 2$
$= 256 - 2$
$= 254$

0000 0001
1111 1111
0000 0001

Simulation of same network(192.168.1.175)

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Cisco Packet Tracer PC Command Line 1.0
C:\>ip config
Invalid Command.

C:\>ipconfig

FastEthernet0 Connection:(default port)

   Connection-specific DNS Suffix..:
   Link-local IPv6 Address.....: FE80::201:42FF:FE86:2CD8
   IPv6 Address.....: ::
   IPv4 Address.....: 192.168.1.175
   Subnet Mask.....: 255.255.255.0
   Default Gateway.....: ::
                                 0.0.0.0

Bluetooth Connection:

   Connection-specific DNS Suffix..:
   Link-local IPv6 Address.....: ::
   IPv6 Address.....: ::
   IPv4 Address.....: 0.0.0.0
   Subnet Mask.....: 0.0.0.0
   Default Gateway.....: ::
                                 0.0.0.0

C:\>ping 192.168.1.175

Pinging 192.168.1.175 with 32 bytes of data:

Reply from 192.168.1.175: bytes=32 time=2ms TTL=128
Reply from 192.168.1.175: bytes=32 time=2ms TTL=128
Reply from 192.168.1.175: bytes=32 time=3ms TTL=128
Reply from 192.168.1.175: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.175:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
```