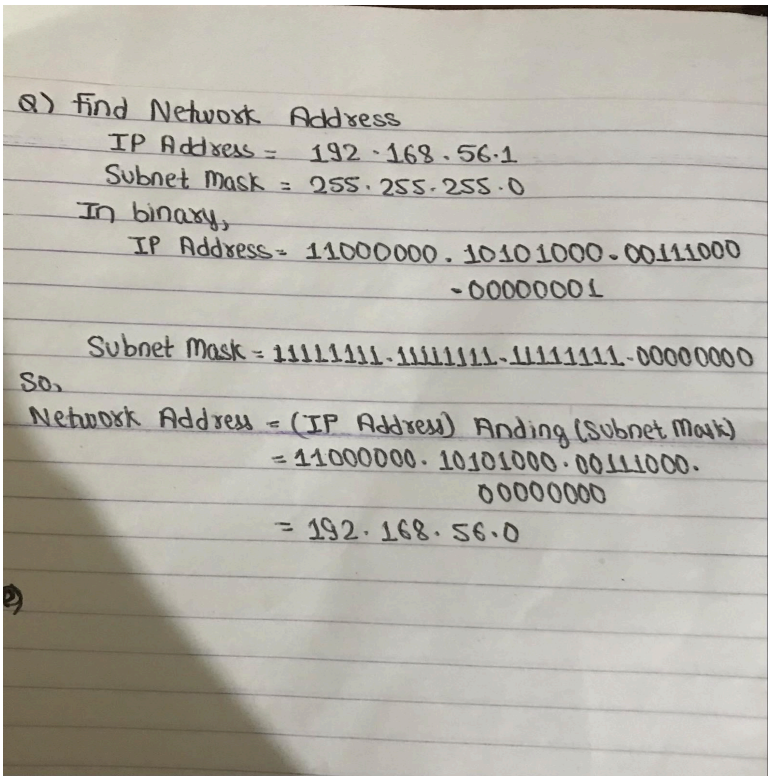
Computer Network Assignment 1

Anup Bashyal (Pas077bct009)

Question 1 and 3……

```
C:\Users\Lenovo>ipconfig

Windows IP Configuration


Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::4ade:275f:6c51:40c2%4
   IPv4 Address. . . . . . . . . . . : 192.168.56.1
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . :

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  . :

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::4667:7cef:e888:413b%10
   IPv4 Address. . . . . . . . . . . : 192.168.16.101
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 192.168.16.1

Ethernet adapter Bluetooth Network Connection:
```

Question 2 and 4……



a) Find Network Address

IP Address = 192 · 168 · 56 · 1

Subnet Mask = 255 · 255 · 255 · 0

In binary,

IP Address = 11000000 . 10101000 . 00111000 . 00000001

Subnet Mask = 11111111 . 11111111 . 11111111 . 00000000

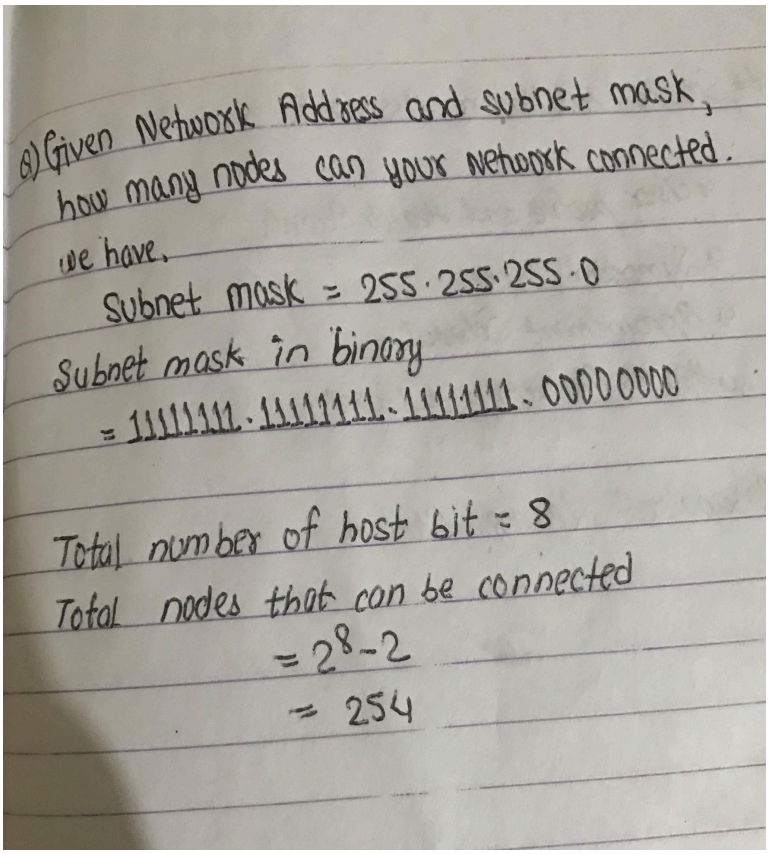
So,

Network Address = (IP Address) Anding (Subnet Mask)

= 11000000 . 10101000 . 00111000 . 00000000

= 192 . 168 . 56 . 0

2)



a) Given Network Address and subnet mask, how many nodes can your network connected.

we have,

Subnet mask = 255 · 255 · 255 · 0

Subnet mask in binary

= 11111111 . 11111111 . 11111111 . 00000000

Total number of host bit = 8

Total nodes that can be connected

$= 2^8 - 2$

$= 254$