

Network Address = 192.168.40.0

No. of Subnets = 2

$2^n = \text{no. of subnets} = 2^n = 2$

**N=1**

255.255.255.255

11111111.11111111.11111111.10000000

255.255.255.128 ==  $\Rightarrow$  subnet mask

1st subnet

Subnet mask = 255.255.255.128

Network ID = 192.168.40.0

Range of Valid Host = 192.168.40.1-192.168.40.126

Broadcast ID = 192.168.40.127

2nd subnet

Subnet mask = 255.255.255.128

Network ID = 192.168.40.128

Range of Valid Host = 192.168.40.129-192.168.40.254

Broadcast ID = 192.168.40.255