

IP: 192.168.11.0

VLSM

Network 1:

$$\text{host} = 40 + 1 = 41$$

$$h_b = 2^6 = 6$$

$$n_b = 32 - 6 = 26$$

$$\therefore \text{IP: } 192.168.11.0 / 26$$

$$\text{Mask: } 255.255.255.192$$

$$\text{NA: } 192.168.11.0$$

$$\text{FH: } 192.168.11.1$$

$$\text{LH: } 192.168.11.62$$

$$\text{BA: } 192.168.11.63$$

~~Network 2~~ Network-2

$$\text{Host} = 26$$

$$h_b = 2^5$$

$$n_b = 27$$

$$\text{IP: } 192.168.11.64 / 27$$

$$\text{Mask: } 192.168.$$

$$\text{Mask: } 255.255.255.224$$

$$\text{NA: } 192.168.11.64$$

$$\text{FH: } 192.168.11.65$$

$$\text{LH: } 192.168.11.94$$

$$\text{BA: } 192.168.11.95$$

$$m = 256 - 192 = 64$$

$$h = 64 \div 0(0)$$

$$h = 0$$

$$\begin{aligned} b &= m + h - 1 \\ &= 64 + 0 - 1 \\ &= 63 \end{aligned}$$

$$m = 256 - 224 = 32$$

$$h = 32 \div 64(2)$$

$$h = 64$$

$$\begin{aligned} b &= 64 + 32 - 1 \\ &= 95 \end{aligned}$$

Network-3:

$$\text{host} = 11$$

$$\text{hb} = 2^4 = 16$$

$$\text{nb} = 28$$

$$\text{IP: } 192.168.11.96$$

$$\text{Mask: } 255.255.255.240$$

$$\text{NA: } 192.168.11.96$$

$$\text{FH: } 192.168.11.97$$

$$\text{LH: } 192.168.11.110$$

$$\text{BA: } 192.168.11.111$$

~~host~~

Network-4:

$$\text{host} = 2$$

$$\text{hb} = 2^2 = 4$$

$$\text{nb} = 30$$

$$\text{IP: } 192.168.11.112/30$$

$$\text{Mask: } 255.255.255.252$$

$$\text{NA: } 192.168.11.112$$

$$\text{FH: } 192.168.11.113$$

$$\text{LH: } 192.168.11.114$$

$$\text{BA: } 192.168.11.115$$

$$m = 256 - 240 = 16$$

$$h = 16 \div 2 = 8$$

$$= 16 \times 2 = 32$$

$$m = 16 + 32 - 1$$

$$= 47$$

$$= 47$$

$$m = 256 - 252 = 4$$

$$h = 4 \div 2 = 2$$

$$= 4 \times 2 = 8$$

$$h = 4 \times 2 = 8$$

$$b = 112 + 4 - 1 = 115$$