

# مریم خدایاری

۴۰۱۱۳۰۲۹۳

پاسخ سوال ۱:

192.068.1.0/24:

$$2^n = 4$$

$$N=2$$

11111111.11111111.11111111.11000000

$$2^6 = 64$$

پس هر ساب نت ۶۴ آدرس دارد

1. 192.168.1.0/26

192.168.1.0/26

192.168.1.1 ... 192.168.1.62

192.168.1.63

3. 192.168.1.128

192.168.1.128 ... 192.168.1.126

192.168.1.191

4. 192.168.1.192

192.168.1.193 ... 192.168.1.254

192.168.1.255

پاسخ سوال ۲:

172.16.0.0/16

$$2^n = 16$$

$$N=4$$

11111111.11111111.110000.00000000

$$2^{12}=4096$$

پس هر ساب نت ۴۰۹۶ آدرس دارد

1.172.16.0.0

172.16.0.1 ... 172.16.15.254

172.16.15.255

2.172.16.16.0

172.16.16.1 ... 172.16.31.254

172.16.31.255

3.172.16.32.0

172.16.32.1 ... 172.16.47.254

172.16.47.255

4.172.16.48.0

172.16.48.1 ... 172.16.63.254

172.16.63.255

5.172.16.64.0

172.16.64.1 ... 172.16.79.254

172.16.79.255

6.172.16.80.0

172.16.80.1 ... 172.16.95.254

172.16.95.255

7.172.16.96.0

172.16.96.1 ... 172.16.111.254

172.16.111.255

8.172.16.112.0

172.16.112.1 ... 172.16.127.254

172.16.127.2550

9.172.16.128.0

172.16.128.1 ... 172.16.143.254

172.16.143.255

10.172.16.144.0

172.16.144.1 ... 172.16.159.254

172.16.159.255

11.172.16.160.0

172.16.160.1 ... 172.16.175.254

172.16.175.255

12.172.16.176.0

172.16.176.1 ... 172.16.191.254

172.16.191.255

13.172.16.192.0

172.16.192.1 ... 172.16.207.254

172.16.207.255

14.172.16.208.0

172.16.208.1 ... 172.16.223.254

172.16.223.255

15.172.16.224.0

172.16.224.1 ... 172.16.239.254

172.16.239.255

16.172.16.240.0

172.16.240.1 ... 172.16.255.254

172.16.255.255

پاسخ سوال ۳:

10.0.0.0/8

$2^n = 64$

$N=6$

11111111.11111100.000000.00000000

$2^{18} = 262144$

پس هر ساب نت ۲۶۲۱۱۴۴ آدرس دارد

1.10.0.0.0

10.0.0.1 ... 10.3.255.254

10.3.255.255

2.10.4.0.0

10.4.0.1 ... 10.7.255.254

10.7.255.255

3.10.8.0.0

10.8.0.1 ... 10.11.255.254

10.11.255.255

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64.10.252.0.0

10.252.0.1 ... 10.255.255.254

10.255.255.255

پاسخ سوال ۴:

192.168.10.0/24

$2^n = 8$

$N=3$

11111111.11111111.11111111.11100000

$2=5^2$

پس هر سابنت ۳۲ آدرس دارد

1. 192.168.10.0

192.168.10.1 ... 192.168.10.30

192.168.10.31

2. 192.168.10.32

192.168.10.33 ... 192.168.10.62

192.168.10.63

3. 192.168.10.64

192.168.10.65 ... 192.168.10.94

192.168.10.95

4. 192.168.10.96

192.168.10.97 ... 192.168.10.126

192.168.10.127

5. 168.10.128

192.168.10.129 ... 192.168.10.158

192.168.10.159

6.192.168.10.160

192.168.10.161 ... 192.168.10.190

192.168.10.191

7.192.168.10.192

192.168.10.193 ... 192.168.10.222

192.168.10.223

8.192.168.10.224

192.168.10.225 ... 192.168.10.254

192.168.10.255

پاسخ سوال ۵:

172.31.0.0/16

$N^2=128$

$N=7$

11111111.11111111.11111110.00000000

$2^9=512$

پس هر سابنت ۵۱۲ آدرس دارد

1. 172.31.0.0

172.31.0.1...172.31.1.254

172.31.1.255

2.172.31.2.0

172.31.2.1... 172.31.3.254

172.31.3.255

3.172.31.4.3

172.31.4.1...172.31.5.254

172.31.5.255

4.172.31.6.0

172.31.6.1...172.31.7.254

172.31.7.255

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128.172.31.254.0

172.31.254.1... 172.31.255.254

172.31.255.255

پاسخ سوال ۶:

10.10.0.0/16

$2^n = 1000$

$2^{10} = 1024$

$N = 10$

11111111.11111111.11111111.11000000

$2^6 = 64$

1. 10.10.0.0

10.10.0.1... 10.10.0.62

10.10.0.63

2. 10.10.0.64

10.10.0.65... 10.10.0.126

10.10.1.127

3. 10.10.0.128

10.10.10.129... 10.10.0.190

10.10.0.191

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1000. 10.10.250.0

10.10.250.1... 10.10.250.62

10.10.250.63

پاسخ سوال ۷:

192.168.0.0/16

$2^n = 1024$

$N=10$

11111111.11111111.11111111.11000000

$2^6=64$

1.192.168.0.0

192.168.0.1 ... 192.168.0.62

192.168.0.63

2.192.168.0.64

192.168.0.65 ... 192.168.0.126

192.168.0.127

3.192.168.0.128

192.168.0.129 ... 192.168.0.190

192.168.0.191

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1024.192.168.255.192

192.168.255.192 ... 192.168.255.254

192.168.255.255