1. **How many subnets are necessary today?**

   5 subnets are necessary today.

2. **How many subnets are estimated to be necessary in the near future?**

   8 subnets are estimated to be necessary in the near future.

No. Of Subnets: 2^S>=5 -> S=3->2^3=8(8 subnets)

3. **How many hosts should have the largest subnet today?**

   24 hosts should be in the largest subnet today.

4. **How many hosts should have the largest subnet in the near future?**

   30 hosts are estimated to be necessary in the near future.

No. Of hosts: 2^H-2>=30 -> H=5->2^5=30 (30 hosts)

5. **Which class of IP Address we'll use?**

   Class C Network: 192.168.230.0

There are necessary 24 hosts per each subnet and at least 5 subnetworks.

From the questions above results that we have 8 subnets and 30 hosts per each subnet.

Subnet Mask: 255.255.255.224 >>> 11111111.11111111.11111111.11100000

CIDR: /27

Sub net	Subnet Binary	Subnet IP Address And Binary	Range	Broadcast IP Address
S#0	000	192.168.230.0 (11000000.10101000.11100110.00000000)	192.168.230.1-192.168.230.30	192.168.230.31
S#1	001	192.168.230.32 (11000000.10101000.11100110.00100000)	192.168.230.33-192.168.230.62	192.168.230.63
S#2	010	192.168.230.64 (11000000.10101000.11100110.01000000)	192.168.230.65-192.168.230.94	192.168.230.95
S#3	011	192.168.230.96 (11000000.10101000.11100110.01100000)	192.168.230.97-192.168.230.126	192.168.230.127
S#4	100	192.168.230.128 (11000000.10101000.11100110.10000000)	192.168.230.129-192.168.230.158	192.168.230.159
S#5	101	192.168.230.160 (11000000.10101000.11100110.10100000)	192.168.230.161-192.168.230.190	192.168.230.191
S#6	110	192.168.230.192 (11000000.10101000.11100110.11000000)	192.168.230.193-192.168.230.222	192.168.230.223
S#7	111	192.168.230.224 (11000000.10101000.11100110.11100000)	192.168.230.225-192.168.230.254	192.168.230.255