NAT Tutorial 5 Extra Exercise

Say you're responsible for administering IP network of HANU. There are three new departments:
+ FIT has 20 PCs
+ FMT has 10 PCs
+ FCS has 4 PCs

You're given an IP block: 192.168.15.64/26. Please subnet the given IP block and assign the subnets to the three new departments.

SOLUTION

FIT:
+ IP block: 192.168.15.64/27
+ Subnet mask: 255.255.255.224
+ Network address: 192.168.15.64
+ Broadcast address: 192.168.15.95
+ IP range: 192.168.15.64 – 192.168.15.95
+ IP range (for hosts): 192.168.15.65 – 192.168.15.94
+ Maximum number of hosts: 30

FMT:
+ IP block: 192.168.15.96/28
+ Subnet mask: 255.255.255.240
+ Network address: 192.168.15.96
+ Broadcast address: 192.168.15.111
+ IP range: 192.168.15.96 – 192.168.15.111
+ IP range (for hosts): 193.168.15.97 – 192.168.15.110
+ Maximum number of hosts: 14

FCS:
+ IP block: 192.168.15.112/29
+ Subnet mask: 255.255.255.248
+ Network address: 192.168.15.112
+ Broadcast address: 192.168.15.119
+ IP range: 192.168.15.112 – 192.168.15.119
+ IP range for host: 192.168.15.113 – 192.168.16.118
+ Maximum number of hosts: 6

Other (reserved for future use):
+ IP block: 192.168.15.120/29
+ Subnet mask: 255.255.255.248
+ Network address: 192.168.15.120
+ Broadcast address: 192.168.15.127
+ IP range: 192.168.15.120 – 192.168.15.127
+ IP range (for host): 192.168.15.121 – 192.168.15.126
+ Maximum number of hosts: 6