Subnetting will be done in the following order: LAN F, LAN A, LAN B, LAN D, LAN C, LAN E, Serial 1, Serial 2.

LAN F is the first to be subnetted, so its subnet address is the network address 92.143.128.0.

A minimum of 12 host bits is needed to accommodate 3000 + 2 = 3002 hosts on LAN F as 212 ≥ 3002.

This leaves 32 – 12 = 20 bits for the subnet mask. LAN F’s subnet mask is /20.

Flipping the last 12 bits of the subnet address to 1, we get LAN F’s broadcast address, which is 92.143.143.255.

Immediately following the broadcast address of LAN F is the subnet address of LAN A, which is 92.143.144.0

A minimum of 11 host bits is needed to accommodate 1500 + 2 = 1502 hosts on LAN A.

32 – 11 = 21 bits remain for the subnet mask. LAN A’s subnet mask is /21.

Flipping the last 11 bits of the LAN A’s subnet address, we get its broadcast address, which is 92.143.151.255

Repeating the above procedure for subsequent subnets, we get:

LAN B subnet address: 92.143.152.0

LAN B subnet mask: /23

LAN B broadcast address: 92.143.153.255

LAN D subnet address: 92.143.154.0

LAN D subnet mask: /24

LAN D broadcast address: 92.143.154.255

LAN C subnet address: 92.143.155.0

LAN C subnet mask: /26

LAN C broadcast address: 92.143.155.63

LAN E subnet address: 92.143.155.64

LAN E subnet mask: /27

LAN E broadcast address: 92.143.155.95

Serial 1 subnet address: 92.143.155.96

Serial 1 subnet mask: /30

Serial 1 broadcast address: 92.143.155.99

Serial 2 subnet address: 92.143.155.100

Serial 2 subnet mask: /30