Lab Project

VLSM (Topic-3; Group-14)

Here,

CSE needs 3002 ip addresses.

MNS = 502

BIL = 1002

BBS = 2002

SHSS = 122

EEE = 202

There are also 5 WAN-links.

∴ Brac University needs (3002 + 202 + 502 + 1002 + 2 + 2002 + 122 + 20) ip addresses

or, 6854 ip addresses.

That means, we need to give Brac University 2^{13} or 8192 ip addresses.

Now,

Let, the network address of Brac University be 192.168.0.0/19

Here,

we need to give,

CSE 4096 ip addresses.

MNS 512 " "

EEE 256 " "

BIL 1024 " "

BBS 2048 " "

SHSS 128 " "

Each WAN link 4 " "

(So, the VLSM tree is drawn on the next page.)

Therefore, the network address of each subnet should be,

For, CSE, 192.168.0.0/20

For BBS, 192.168.16.0/21

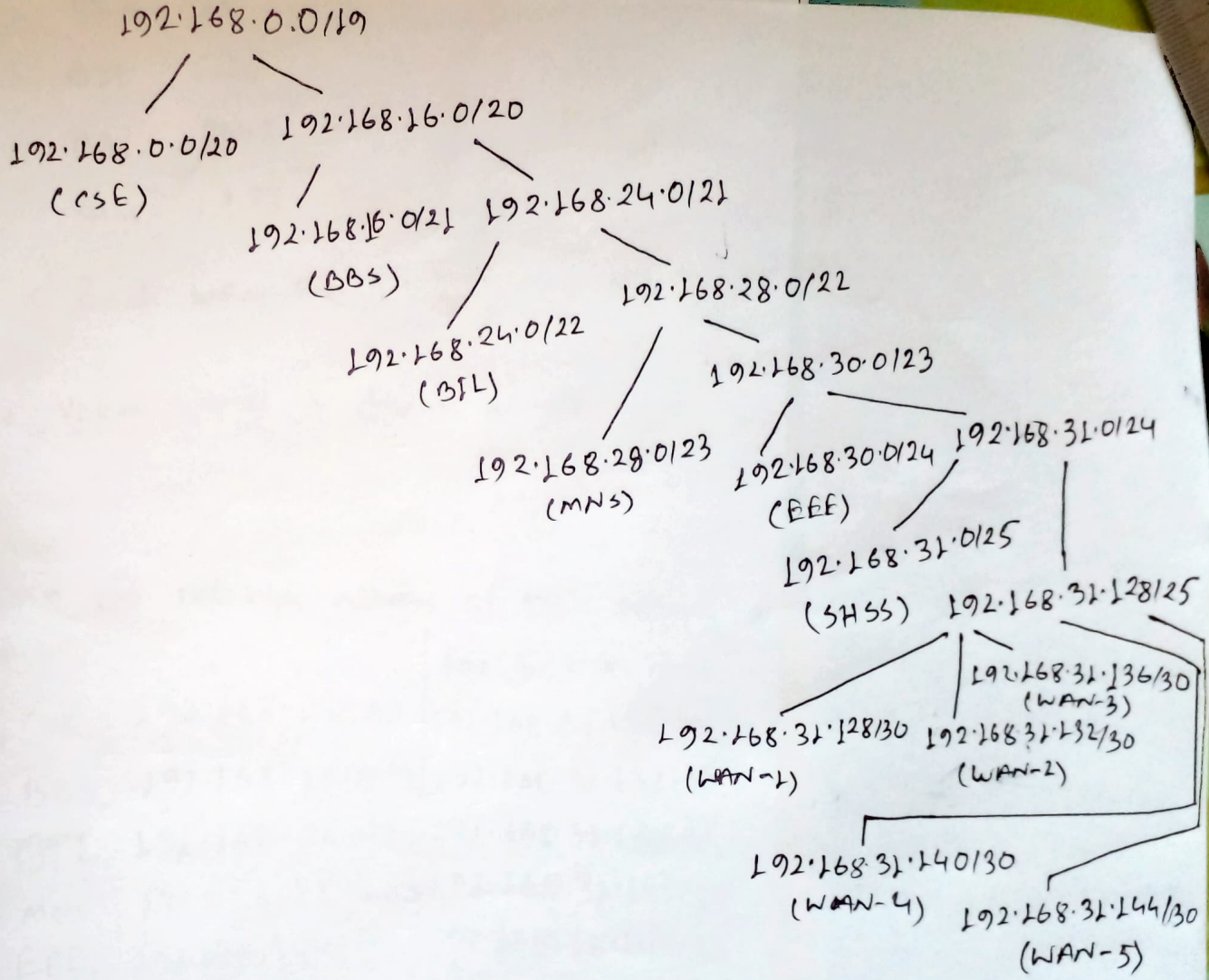
For BIL, 192.168.24.0/22

For MNS, 192.168.28.0/23

For EEE, 192.168.30.0/24

For SHSS, 192.168.31.0/25

For 5 WAN links, 192.168.31.128/30, 192.168.31.132/30, 192.168.31.136/30, 192.168.31.140/30, 192.168.31.144/30 respectively.


192.168.0.0/19
192.168.0.0/20
(CSE)
192.168.16.0/20
192.168.16.0/21
(BBS)
192.168.24.0/21
192.168.24.0/22
(BFL)
192.168.28.0/22
192.168.28.0/23
(MNS)
192.168.30.0/23
192.168.30.0/24
(EEE)
192.168.31.0/24
192.168.31.0/25
(SHSS)
192.168.31.128/25
192.168.31.128/30
(WAN-1)
192.168.31.132/30
(WAN-2)
192.168.31.136/30
(WAN-3)
192.168.31.140/30
(WAN-4)
192.168.31.144/30
(WAN-5)