UGANDA CHRISTIAN UNIVERSITY

A Centre of Excellence in the Heart of Africa

NAME: MAWUBA BLAIR

REG NO: M25B13/010

ACCESS NO: B33217

1. New Subnet mask = /26 (255.255.255.192)

Subnets = 4
Usable hosts = 62

2. New Subnet mask = /27 (255.255.255.224)

Usable hosts = 30

First two Subnets = 192.168.1.0/27 & 192.168.1/27

3. a) Subnets = 16
Usable per subnet = 254

b) Network = 172.16.3.0/24

Broadcast 172.16.3.255

4. New Subnet =/17 (255.255.128.0),

Subnets = 512,

Usable hosts per subnet = 32766

5. New Subnet = /27 (255.255.255.224),

Usable hosts per subnet = 30

The first subnet ranges
1. 192.168.5.0/27 range 192.168.5.0 -.31
2. 192.168.5.32/27 range 192.168.5.32 -.63

3. 192.168.5.64/27 range 192.168.5.64 -.95

6. Usable hosts = 62
First three /26 ranges:

1. 192.168.1.0/26
2. 192.168.1.64/26
3. 192.168.1.128/26
4. 192.168.1.192/26

7. Usable hosts = 30
First three /27 ranges:

1. 192.168.1.0/27
2. 192.168.1.32/27
3. 192.168.1.64/27

8. New Prefix = /17

Subnets = 512

Usable hosts = 32766

9. New Prefix = /20

Usable hosts = 4094

10. New Prefix = /26,

Subnets = 4

11. Network: 192.168.5.64

First Host: 168. 5.65

Last Host: 192.168.5.126

Broadcast: 192.168.5.127

12. Network: 172.168.16.0.0/20

First Host: 172. 16.0.1

Last Host: 172.16.15.254

Broadcast: 172.16.15.255

13. Usable hosts = 14
Block size = 16 addresses
IP = 192.168.2.0/28 Range = .0 -.15

14. 192.168.100.0/25 == Usable 192.168.100.1 –.126

192.168.100.128/25 == Usable 192.168.100.129 –.254

15. New subnet = /30,

Subnets = 64,
Usable hosts = 2.

16. New subnet = 23

Subnets = 128
Usable hosts = 510

17. New prefix = /28 Usable hosts = 14 First four subnets:

1. 192.168.30.0/28
2. 192.168.30.16/28
3. 192.168.30.32/28
4. 192.168.30.48/28

18. Network ID: 10.0.0.0/19
Broadcast: 10.0.31.255
Usable Range: 10.0.0.1 –10.0.31.254

19. Network: 172.31.64.0/19
Hosts required: ≥1000

20. New Prefix = /26

Subnets = 8
Usable hosts per subnet = 62

21. Network: 172.20.50.128/26

Broadcast: 172.20.50.191

22. Prefix = /25
Hosts = 126
per subnet 2 subnets in /24

23. Prefix = /27 Sub-nets = 8

24. Prefix = /30

Subnets = 64
Example: 10.10.10.0/30
Range 10.10.10.0 –10.10.10.3

25. Subnet: 192.168.88.192/27

Range: 192.168.88.193 –.222
Broadcast: 192.168.88.223

26. VLSM allocation: Sales /26 (192.168.60.0 –.63) HR /27 (192.168.60.64 –.95) IT /28 (192.168.60.96 –.111) Admin /29 (192.168.60.112 –.119)

27. VLSM for 10.1.0.0/24: A= /25 (100 hosts)
B= /26 (50 hosts) C= /27 (20 hosts)

28. 172.18.0.0/20 VLSM: Dept1= /24
Dept2= /26 Dept3= /27 Dept4= /28

29. 192.168.16.0/23

30. VLSM: 10 links = 10 × /30 (10.0.0.0–10.0.0.39)
LAN = /26 (10.0.0.64–10.0.0.127)

31. Prefix = /22 Usable hosts = 1022

32. Prefix = /25
3 subnets (192.51.100.0/25, .128/25, .256/25)
Hosts = 126 each

33. IPv6 /52 subnets: 200: db8: a cad: 0: :/52 2001:db8: acad:1: :/52

34. IPv6 /58 subnets: 2001:db8:1234:5600: :/58 2001:db8:1234:5604: :/58 2001:db8:1234:5608: :/58 2001:db8:1234:560c: :/58

This is my plan and the things l hope one day to achieve in the name of Jesus AMEN