LEADING UNIVERSITY

Lab Exam

Course Code : CSE-3116

Course Title : Computer Networks Sessional

DEPARTMENT OF CSE LU 50th BATCH

SPRING - 2021

SUBMITTED TO:

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Ans to the question no: 1

Network Name with host Number	Network Address	Subnet Mask	Host Range	Broadcast Address
LAN-B-1024	192.168.0.0	255.255.248.0	192.168.0.1 - 192.168.7.254	192.168.7.255
LAN-A-510	192.168.8.0	255.255.254.0	192.168.8.1 - 192.168.9.254	192.168.9.255
LAN-D-30	192.168.10.0	255.255.255.224	192.168.10.1 - 192.168.10.30	192.168.10.31
LAN-C-20	192.168.10.32	255.255.255.224	192.168.10.33 - 192.168.10.62	192.168.10.63
WAN-A-2	192.168.10.64	255.255.255.252	192.168.10.65 - 192.168.10.66	192.168.10.67
WAN-B-2	192.168.10.68	255.255.255.252	192.168.10.69 - 192.168.10.70	192.168.10.71

Extra Page

LAN - B - 1024

192.168.15.0 / 20

Network Address: 11000000. 10101000. 00001111.

00000000

⇒ 11000000 10101000 0000 0000.

00000000

Network Address ⇒ 192.168.0.0

subnet mask ⇒ 11111111 11111111 11111111 00000

000000

⇒ 255.255.248.0

Broadcast Address ⇒ 11000000 10101000 00000111

11111111

⇒ 192.168.7.255

Host range ⇒ 192.168.0.1 - 192.168.7.254

LAN - A - 510

192.168.8.0 ⇒ 11000000. 10101000 00001000

00000000

⇒ 11000000 10101000 000010 00 00000

000

⇒ 192.168.8.0

subnet mark ⇒ 11111111.111 1.1 1 1111 111

1 0 0 0 0 0 0 0 0 0

⇒ 255.255.254.0

Broadcast address ⇒ 11000000 10101000 0000100

11111111

⇒ 192.168.9.255

Host range ⇒ 192.168.8.1 ⇒ 192.168.9.254

LAN - D - 30

192.168.10.0 ⇒ 11000000 10101000 00001010

00000000

⇒ 11000000 10101000 00001010

00000000

⇒ 192.168.10.0

subnet mark ⇒ 11111111 11111111 11111

100000

⇒ 255.255.255.224

Broadcast Address : 11000000 10101000 00001

00011111

⇒ 192.168.10.31

Host Range ⇒ 192.168.10.1 - 192.168.10.30

LAN - C - 20

192.168.10.32 ⇒ 11.000000 10101000.00001010

00100000

→ 11000000 10101000 00001010

00100000

→ 192.168.10.32

subnet mark

11111111 11111111 11111111 11100000

255 255 255 224

Broadcast Address

11000000 10101000 00001010 001 11111

⇒ 192.168.10.63

Host range ÷ 192.168.10.33 — 192.168.10.62

WAN A-2

⇒ Network ⇒ 192.168.10.64

Subnet mark : 255.255.255.252

Broadcast Address : 192.168.10.67

Host range : 192.168.10.65 – 192.168.10.66

Network Address : 192.168.10.68

subnet mark : 255.255.255.252

Broadcast Address : 192.168.10.71

Host range ⇒ 192.168.10.69 – 192.168.10.70

Ans to the question no: 2

Given Ip Address:

112. 14. 16. 240 / 20

~~112~~ 120

Giving ~~112~~ host for each subnet

So, host count in each subnet

$= 2^7 - 2$

$= 126$

∴ 120.14.16.1 | 111 0000

← Network → | ← Host →

∴ Number of subnet $= 2^1$

$= 2$

Ans