Ch-3 → ~~22~~ 19, ~~26~~, ~~14-16~~

3 to 10 26-29,

4, 5, 6, 7 91-92

14

16-20 ~~LAB~~

~~Given~~ = LAB - 10

Given = 192.168.111.0/29

* Existing student

Subnet : 192.168.111.0/25

Network : 192.168.111.0

Mask : 255.255.255.128

usable = 192.168.111.1 - 192.168.111.126

Broadcast : 192.168.111.127

For R2 (Fa0/0)

ip = 192.168.111.126

mask = 255.255.255.128

Host 1A

ip = 192.168.111.1

mask = 255.255.255.128

Default gateway - 192.168.111.126

Host 1B:

ip = 192.168.111.2

mask = 11

Default gateway = 11

Device	Interface	Ip	Subnet mask	Default Gateway
R1	fa0/0	192.168.111.139	255.255.255.248	N/A
	Sa0/0/0	192.168.111.138	255.255.255.252	
R2	Fa0/0	192.168.111.126	255.255.255.128	N/A
	Sa0/0/0	192.168.111.137	255.255.255.252	
1A	~~192.168.111.~~ NIC1	~~x~~ 192.168.111.1	255.255.255.128	192.168.111.126
1B	NIC	192.168.111.2	11	11
Server	NIC	192.168.111.133	255.255.	192.168.

LAB – 13/14 same

S1 and S2 same (Switch)

~~Switch enable~~

(a) enable

configure terminal

(b) hostname S1

(c) no ip domain-lookup

(d) password set करना:

enable secret class

line con 0

password cisco

login

exit

(e) SVI

interface vlan 1

ip address 192.... 255....

no shut

exit

(f) banner MotD command:

banner motd #

Enter text #

#

exit.

(g) Save the configuration:

copy running-config startup-config

Enter

(h) show current configuration:

show running-config

(i) Display IOS version:

show version

(j) Display interface on switch:

show ip interface brief

11111111 11111111 11111111 11000000

Lab-17 (9)

Given — 192.168.1.0/24

For R1 (Fa0/0):

$n = 32 - \log_2(64) = 26$

Network:

192.168.1.0 — 192.168.1.63/26

For R2 (Fa0/1):

$n = 32 - \log_2(32) = 27$

192.168.1.64 — 192.168.1.95/27

(Fa0/0):

$n = 32 - \log_2(16) = 28$

192.168.1.96 — 192.168.1.111/28

R3 (Fa0/0):

$n = 32 - \log_2(16) = 28$

192.168.1.112 — 192.168.1.127/28

$R_1 - R_2$:

$n = 32 - \log_2(4) = 30$

192.168.1.128 - 192.168.1.131/30

$R_1 - R_3$:

192.168.1.132 - 192.168.1.135/30

$R_2 - R_3$:

192.168.1.136 - 192.168.1.139/30

Device	Interface	IP Address	Subnet mask	Default Gateway
R1	Fa0/0	192.168.1.62	.192	X
	Se0/0/0	.129	.252	X
	Se0/0/1	.133	11	X
R2	~~Fa0/0~~ Fa0/1	.110 ~~.94~~	~~.240~~ .224	X
	Se0/0/0	.130	11	X
	Se0/0/1	.134	.252	X
R3	Fa0/0	.126	.240	X
	Se0/0/0	.138	11	X
	Se0/0/1	.134	.252	X
PC-14	NIC	192.168.1.1	~~.192~~ 255.255.255.192	192.168.1.6
PC-1B	NIC	192.168.1.97	255.255.255.240	192.168.1.11
PC-1C	NIC	192.168.1.113	.240	.126
Eagle Server	NIC	192.168.1.93	.224	.94

Done

Lab - 18

Given - 192.168.3.0/27

1st subnet: (existing student LAN)

$n = 32 - \log_2(32) = 27$

192.168.3.0 — 192.168.3.31/27

2nd subnet (future student LAN):

$n = 27$

192.168.3.32 — 192.168.3.63/27

3rd subnet (existing ISP LAN):

$n = 28$

192.168.3.64 — 192.168.3.79/28

4th subnet (future ISP):

$n = 28$

192.168.3.80 — 192.168.3.95/28

5th subnet (existing WAN):

$n = 30$

192.168.3.96 — 192.168.3.99/30

Device	Inteface	IP address	Subnet mask	Default
R1	Fa0/0	192.168.3.78	.240	X
	S0/0/0	.98	.252	X
R2	Fa0/0	.30	.224	X
	S0/0/0.	.97	.252	X
PC-1A	NIC	.1	.224	.30
PC-1B	NIC	.2	.224	.30
Eagle Server	NIC	192.168.3.77	255.255.255.240	.78
Switch	VLAN1	.29	.224	.30

R1/R2 CLI:

enable
configure terminal
hostname R1-ISP
enable secret cisco (password [illegible])
banner motd #
Enter text:-
#

Q12 37

line console 0
password cisco
login
exit
line vty 0 4
password cisco
login
exit
interface s0/0
ip address 192.... 255....
no shutdown
interface s0/0/0
ip address 192.... 2554....
clock rate 64000
no shutdown
exit

L

6 31 15 → 32

ip route . . . . ipaddress subnet ipaddress

exit

copy running – config startup-config

[Enter]

exit.