EXP 9 CLASSFULL SUBNETTING

AIM :- Implementation of subnetting in CISCO packet tracer simulator

Procedure :-

1) Create a network using switches, router and PCs

2) The IP addres will be as follows :-

Router R_1

Gigabit Ethernet 0/0 : 192.168.1.1

Gigabit Ethernet 0/1 : 192.168.2.1

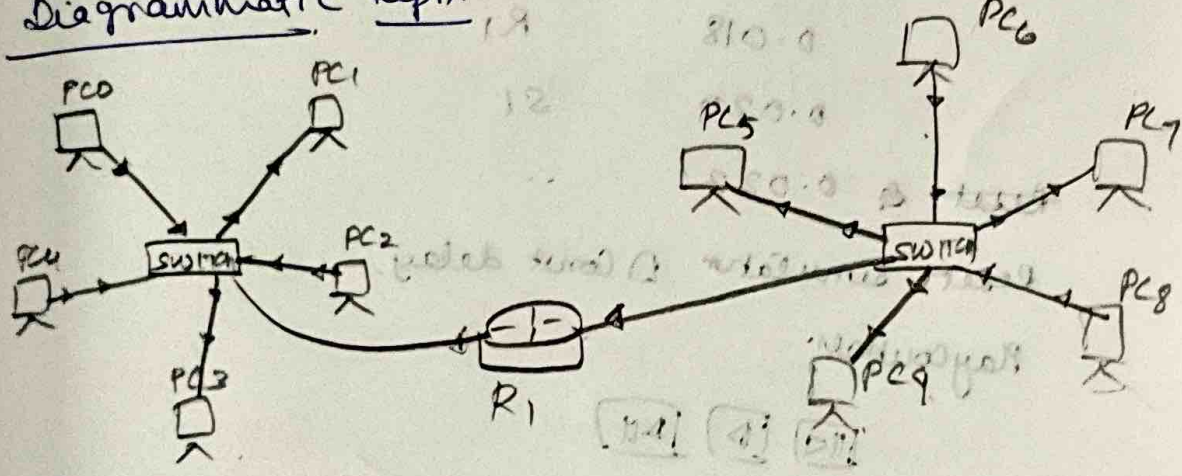
Enable the 'on'

LAN 1	IP Address	Gateway
PC_0	192.168.1.11	192.168.1.1
PC_1	192.168.1.12	
PC_2	192.168.1.13	
PC_3	192.168.1.14	
PC_4	192.168.1.15	

S1 & S2 → No IP

LAN 2	IP Address	Gateway
PC5	192.168.2.11	
PC6	192.168.2.12	
PC7	192.168.2.13	192.168.2.1
PC8	192.168.2.14	
PC9	192.168.2.15	

Diagrammatic Repn.



Output Lets assume sender PC4 & Receiver PC7
Simulating & observing we get the simulation panel

Simulation Panel

Event List

VIS	time	Last Device.
	0.000	--
	0.003	PC1
	0.005	S1
	0.008	R1
	0.010	S2
	0.011	PC4
	0.015	S2
	0.018	R1
	0.020	S1
	0.023	....

Reset Simulation ☐ Const delay.

Play controls.

Student observation :-

a) Subnetting is process of dividing a large IP nlw and manageable section called subnets.
Each subnet act as independent nlw & allow devices connected to it to communicate within the subnet & control traffic b/w subnet

b). Efficient IP management - based on requirement.
- Reduce nlw congestion - limit broadcast traffic to individual subnets

c) Subnetting in your college.

RESULT :-

The implementation of subnetting in CISCO has been implemented successfully