

9/10/24

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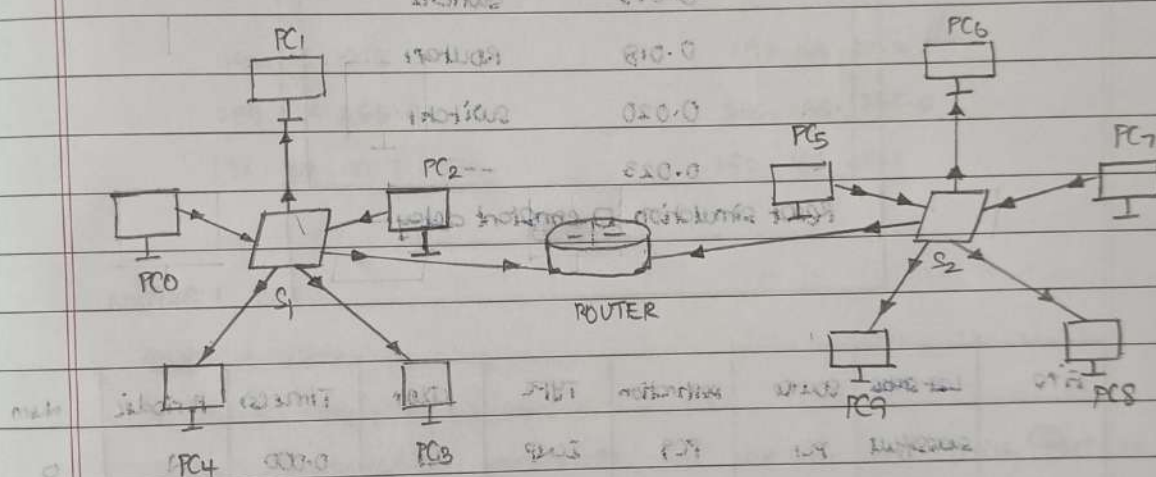
## PRACTICAL - 9

## AIM:

Implementation of subnetting in Cisco packet tracer simulator

## SUBNETTING:

To subnet the network address of  $192.168.1.0/24$  to provide enough space for at least 5 addresses for end devices, the switch and the router we can use /27 subnet mask. This will give us 8 subnets with 30 host addresses each.



## STUDENT OBSERVATION:

- 1) Write down your understanding of subnetting:
 

subnetting is the process of dividing a large IP network and manageable section called subnet. Each subnet act as independent network and allow devices connected to it to communicate within the subnet & control traffic between subnets.
- 2) Advantages of implementing subnetting within a network.
  - Efficient IP management - based on requirement
  - Reduce network congestion limit broadcast traffic to individual subnets.

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OUTPUT:

Simulation Panel			X
Event List			
VIS	Time	Last Device	
	0.000	--	
	0.003	PC1	
	0.005	switch1	
	0.008	Router1	
	0.010	switch2	
	0.013	PC9	
	0.015	switch2	
	0.018	Router1	
	0.020	switch1	
	0.023	--	
Reset simulation <input type="checkbox"/> constant delay			

File	Last status	Source	Destination	Type	Color	Time(s)	Periodic	Num
①	successful	PC1	PC9	icmp	□	0.000	N	0

RESULT:

Thus the implementation of subnetting in CISCO has been done successfully.

AIM:

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