

# Assignment 8

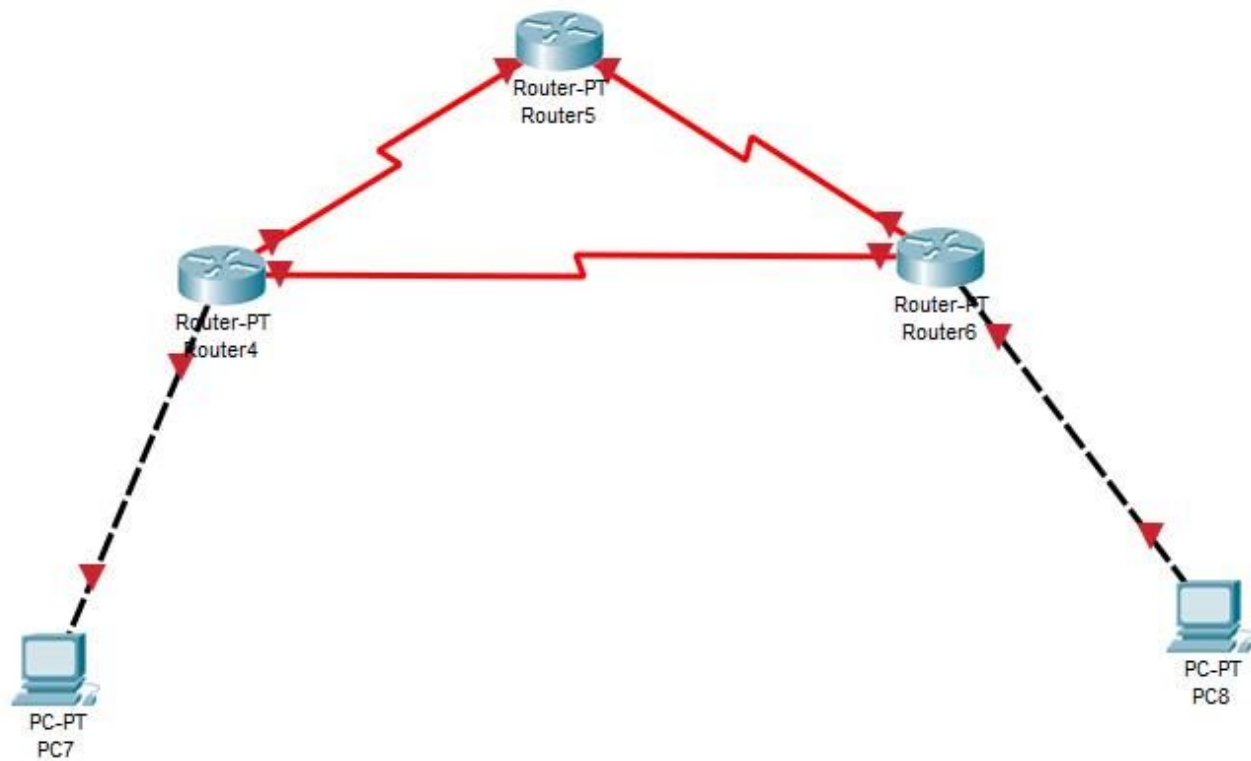
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## Problem Statement 1:

Use CISCO packet tracer to create a network topology as shown in Fig. 1, and configure the network with Open Shortest Path First (OSPF) protocol.



Solution:

FileEditOptionsViewToolsExtensionsHelp

Logical

Back

[Root]

New Cluster

Move Object

Set Tiled Background

Viewport

Environment: 22:40:30

Router-PT  
Router7

10.0.0.0

11.0.0.0

12.0.0.0

192.168.1.0

192.168.2.0

PC-PT  
PC0

PC-PT  
PC1

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type	Info
	0.001	--	PC0	ICMP	
	0.002	--	PC1	ICMP	
	0.002	PC1	Router8	ICMP	
	0.002	PC0	Router6	ICMP	
	0.002	Router8	PC1	ICMP	
	0.002	Router6	PC0	ICMP	
	0.002	--	PC0	ICMP	

Reset Simulation

☒ Constant Delay

Capturing...

Play Controls

Back

Auto Capture / Play

Capture / Forward

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAP, POP3, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Time: 01:27:11.718

Power Cycle Devices

PLAY CONTROLS:Back

Auto Capture / Play

Capture / Forward

Scenario 0

New

Delete

Toggle PDU List Window

Automatically Choose Connection Type

Fire

Last Status

Source

Destination

Type

Color

Time(sec)

Periodic

Num

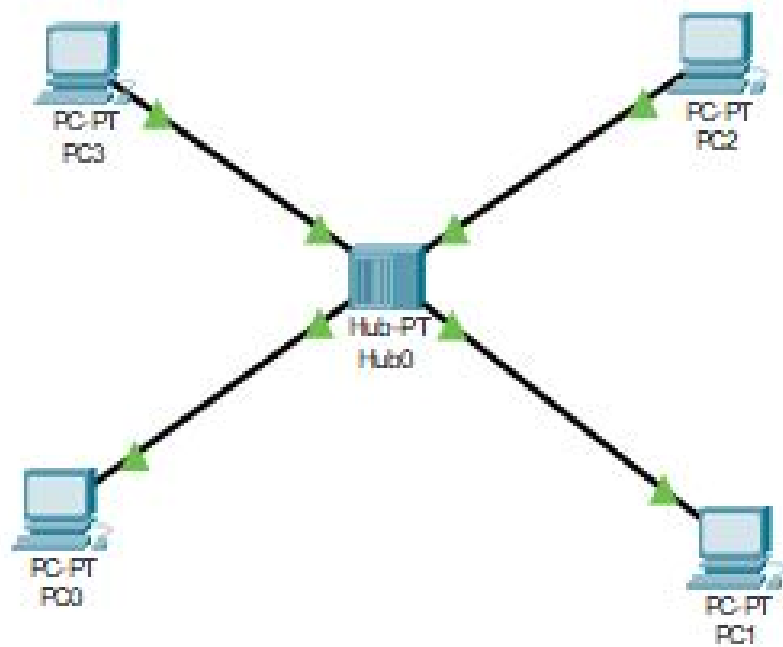
Edit

Delete

Successful	PC1	192.168.2.1	ICMP		0.000	N	0	(edit)	(delete)
In Progress	PC1	192.168.2.1	ICMP		0.000	N	1	(edit)	(delete)
In Progress	PC1	Router8	ICMP		0.000	N	2	(edit)	(delete)
In Progress	PC1	Router7	ICMP		0.000	N	2	(edit)	(delete)

### Problem Statement 2:

Use CISCO packet tracer to demonstrate Address Resolution Protocol (ARP) in a star topology as shown in Fig. 2.



Solution:

FileEditOptionsViewToolsExtensionsHelp

LogicalBack[Root]New ClusterMove ObjectSet Tiled BackgroundViewportEnvironment: 20:19:00

```
graph TD; Hub0[Hub0] --- PC0[PC-PT PC0]; Hub0 --- PC1[PC-PT PC1]; Hub0 --- PC2[PC-PT PC2]; Hub0 --- PC3[PC-PT PC3];
```

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type	Info
	0.002	--	PC3	ICMP	
	0.002	Hub0	PC0	ICMP	
	0.002	Hub0	PC3	ICMP	
	0.002	Hub0	PC2	ICMP	
	0.002	Hub0	PC1	ICMP	
	0.002	--	PC3	ICMP	
	0.002	--	PC1	ICMP	

Reset Simulation☒ Constant DelayCapturing...

Play Controls

BackAuto Capture / PlayCapture / Forward

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit FiltersShow All/None

Time: 01:37:42.534Power Cycle DevicesPLAY CONTROLS:BackAuto Capture / PlayCapture / Forward

Scenario 0NewDeleteToggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC3	PC3	ICMP		0.000	N	5	(edit)	(delete)
	In Progress	PC1	PC3	ICMP		0.000	N	6	(edit)	(delete)
	In Progress	PC2	PC0	ICMP		0.000	N	7	(edit)	(delete)
	In Progress	PC3	PC1	ICMP		0.000	N	8	(edit)	(delete)