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Course → MCA 2 B

Subject → Computer Networks

Ques (i)

Problem Statement → There is an Organization A with multiple departments. Design a network for the HR department and size of the department is 10 users. Also show the communication b/w user number 1 and number 5 of the network.

Objective → Need to create a virtual LAN environment in Cisco Packet Tracer that will show communication between 2 users.

Steps →

Step 1 → We will place nodes first: Organization A HR department and user 1 to user 10.

Step 2 → Add Router and also add switch and connect them both at the top.

Step 3 → Add 10 machines named from PC0 to PC9 and connect all machines to switch.

Step 4 → Assign IP address to every machine.

Step 4 (a) → In our case we will assign IP 192.168.1.1 to PC0 and IP 192.168.1.5

Alpesh



to PCA which is user 5.

Step 5) Now there are 2 ways to verify the connection b/w 2 users network.  
First method → By pinging by its system ID and if reply comes so its working state.

Second method → By sending PDU packets from 1 to User 5.

Step 6) We can now see both system are getting pinged through IP or other system and we also being sent to both system.

Step 7) Hence, we are able to communicate b/w 2 users user 1 & user 5 on HR department.

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Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 1328, y: 431

[Root] 03:48:00

hr department of A

2550-24T Switch0

user1 PC-PT PC0

user2 PC-PT PC1

user3 PC-PT PC2

user4 PC-PT PC3

user5 PC-PT PC4

user6 PC-PT PC5

user7 PC-PT PC6

user8 PC-PT PC7

user9 PC-PT PC8

PC-PT PC9

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device
<input checked="" type="checkbox"/>	0.000	-	PC0

Reset Simulation ☒ Constant Delay Captured to: 0.000 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, 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: 00:07:22.747 PLAY CONTROLS

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
<input checked="" type="checkbox"/>	In Progress	PC0	PC4	ICMP		0.000	N	0	(edit)	(delete)

33°C Haze 09:38 AM 22-06-2021

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 1064, 361

[Root]

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device
	0.001	PC0	Switch0
	0.002	Switch0	PC4
	0.003	PC4	Switch0
	0.004	Switch0	PC0

Reset Simulation ☒ Constant Delay Captured to: 0.004 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, 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: 00:07:36.315 PLAY CONTROLS

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	PC0	PC4	ICMP		0.000	N	0	(edit)	(delete)

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