Consiguration of Network Components.

Aim: To study the bollowing network devices in details
PC, server, Repeater, Hul, switch, Bridge,
Router, Grate way, Transmission medium.

APPARATUS (soptimare):- CISCO Packet traces.

* Node: In a communications network, a network node is a connection point that can receive, create, store or send data along distributed network routes.

* Repeater: - A repeater is an electronic device that receives a signal and retransmits it at higher level, so that the signal can cover longer distance

* HUb: - It is a device for connections multiple twisted Pair or biber of the Ethernet devices together and making them act as a single network segment.

* <u>switch:</u> It is a computer networking device that connects network segments. The term commonly refers to a network bridge that processes & routes at data link layer (layer 2) of OSI model.

* Bridge: It Connects multiple network segments at the data link layer (layer 2) of OSI model. In Ethern data link layer (layer 2) of OSI model. In Ethern networks, the term bridge bormally means a den behaves according to SEEE 802.

network land Erlinte

* Router: It is an electronic device that intercon two or more computer networks and selectively into populars Packets of data b/w them. 1 meherrent * Grate way: - In a communication network. a network 2) Aim - To node equipped bor interbacing with another tracer network that uses dibberent Protocols. wing APPAR I * server: A server is a type of computer device on a network that manages network resources. procedu step 1 * Transmission media i- the medium through which the signal ster3: travel proppe one device to another. EHRE - It is a debite for connection multiple finds noticely segrent at the Result: Thus the network components are studied in de

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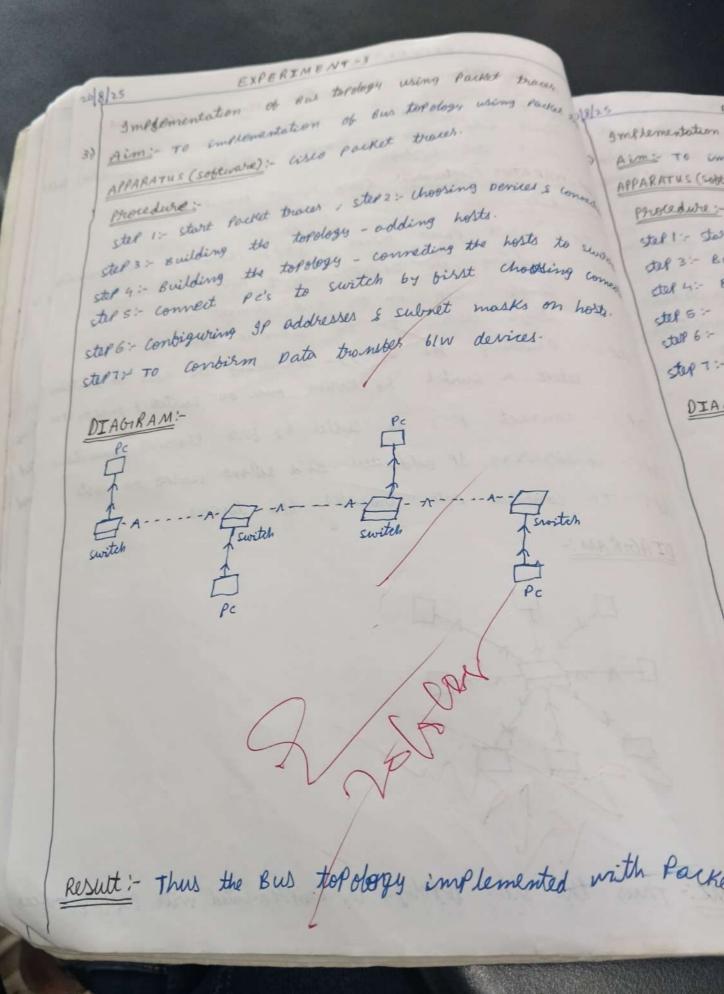
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ntesda 49/8/25 EXPERIMENT-2 I melementation of star topology wing packet traces 2) Aim: To implementation of star tolology wing Parks tracer and hence to transmit data blw devices commented APPARATUS (software): Cisco Parket travel. procedure: step 1: - start packet tracer; step 2: Chapting perices connection step3: Building the terology - adding hosts single click on the End devices. single dick on the oreneric host. stel 4:- Building the topology-connecting the hosts to switches select a switch by clicking once on switch & once on 2950 ster 5: - Connect Pc's to switch by first Choosing Connections. step6: - consiguring IP addresses and subset marks on horse. ster 7:- TO conbirm Data transfer blw devices. DI AGIRAM: Result: - Thus the stor to Pology is implemented with parket tracer.

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2018/25 EXPERIMENT-4 Implementation of ring topology wing power braces. us) Aim: To implementation of ring tordogs wing pares traces APPARATUS (SOBTUOTO) - CISCO POLKOT TROCES. pprocedure: stef 1:- start Packet tracer, step 2:- choosing perices & connection def 3:- Building the topology - Adding hosts. Celta del 4:- Building the tolology - connecting the hosts to switcher stell 5: - Connect PC's to switch by birth choosing Connections step 6: Consiguring gp addresses & subnet masks on hosts step 7:- TO contirm data transfer blw devices. DIAGIRAM: Result: Thus the ring topology is implement with Packet tracer.



EXPERIMENT - 15 Implementation of mech topology wing Packet traces, 248/25 5) Aim: To implementation of mesh topology wring

5) Aim: To implementation to transmit data blev devices 18/25 tracer and here to parket tracer. EXPER APPARATUS (software):- cisco packet tracer. synflementation of Aim's To implement ster: start packet tracer; ster 2:- choosing devices & conneg APPARATUS (software): stels: Building the tolslogy - adding hosts. procedure: step 1: Start Pack stel 3: Building the tolology - connecting hosts to switches cter3: - Building step 4: Building the witch by birst chooling connection step 4: Building steps: Connect PC'S to switch by birst masks on hotts. steps: - connect del6: consiguring Il addresses & subnet masks on hotts. step 7: TO consirm pata transfer 61 w devices. ctep 6: - Building ster 7: Londinge step 8 - verify DIAGRAM: stel 9:- veri DIAGRA Result: Thus the mesh topology is implemented with Packet

EXPERTMENTsynthementation of tree topology valing packet braces. dime to implementation of the totalogs using rance traces AMARATUS (continue) - cisco facret tracer staff: start facket truces . staff: chooling persons & connections. ster3 - Building the totdogy - Adding hoste steps: - Building the star topology - connecting hosts to hubs steps: connect for to hub by birst choosing convections staff - Building the tree toldogy - connecting hules to active he statt: londiquering of address & subnet marks on host state: verifying connectivity in real time made. stel 9: verifying connectists in simulation made DIAGIRAM :-Result: - Thus the tree topology is implemented with packet trace

EXPERT MENT-T Implementation of hybrid topology (Bus and ring in 248/15 using parket traces. Aim: To implementation of hybrid topology wing pata link m: To implementation to transmit data bliv device, analysis APPARATUS (SAStware): Cisco Packet tracer. APPARAT stell: start packet tracer; stell: (hoosing devices Econ. Procedi 17 open step 3: - Building the topology - adding hosts. 3.) Uhr steph: Building the Bus tolotogy - connecting hosts to hules. 4) hat stels: - Building the ring fortorology - connecting hosts to hules. 5) 6 tell: lonnect Pc's to hub by first choosing connections 6) 5 step 7:- Conbiguing IP addresses subnet masks on hosts. 0: steps: veribying connectivity in Realtime simulation made Result: Thus the hybrid topology is implemented wit

g Packex enotocol (2100) Data link later trabbic simulation using Packet traces. EXPERIMENT-10 wring Clas analysis of ESMA/CD & ESMA/CA torology. Aim: TO implement data link layer trabbu simulation Packet Trage using parket braces analyses of CSMAICO & CSMAICA. APPARATUS (Sobtware): - cisco Packet trocos Requirement: End device : cable : switch Procedure: step 1:- Click on end devices, select generic Pc's drag Edragia it on the window click on switch drag & drop it on window step2: - sedect the straight through cable and conved all end device to switch. A ssign the SP address bot all end devices. step 3:- Now set the GP address to host A(192.168.1.1) in state mode. Simarily to host B (192.168.1.2) & nost c (192.168.1.2) stell 4:- TO vilw the IP address, give IP cont command in steps:- Now display the facket transmission in simulation med. DIAGIRAM:-Result: Thus lank layer trabbic simulation using Parke traces analysis of CSMA/CD & CSMA/CAis implement

EXPERT MENT -4 Oata link layer tradtiv simulation using parage 22/8/22 trever analysis of 110%. 3) Aim: To analyse the link layer discovery motocus of m To analyse the senset traces by landiqueing traffic using circle packet traces by landiqueing topped to traffic using circles in given network topped to pata line logo en norters and switches in given network tordays analysis of APPARATUS (SOSTWORD):- (Po Route); switch of) circo Para & Almi- TO Lind wing pa Requirments: Routes; cwitch; calve APPARATUS! Requireme (2) Add devices Proceduro Procedure: 3) contigure LLDP on nouters and switches. 1) open Packet tracer stell 1- Vin sterz: St w veriby LLDP consiguration. devi JUP 3:-DIAGIRAM: Routes ster 1 Result: Thus link layer discovery protocol (ZLDP) trabbic usi

asso packet tracer in given network topology.

ring Haraly 22/8/25 Sing Page 8) EXPERIMENT-8 Data link layer trabble simulation using Aim: To implement data link layer trabple simulation using parket traces analysis of ARP. APPARATUS (software): - cises Packet tracer. £ Conne 1) open Packet tracer 2) click on list the avaliable carture 3) Choose the PC's settler and hul. 4) Later give connection become hub to remaining re-W. 5) Give IP address to Pc's with consignration. 1 6) simulate the source and destination. 3. OIAGIRAM: server Result: Thus data link layer trabbic simulation win Packet tracks analysis of ARP is implemented

a Packer 2 routers 23/8/25 Soptemany. EXPERT MENT-12 pesign the bunchenalities and exploration of Tep rebl they using packet braces. 129 Aim: To design the bunctionalities and excellention of Terming Packet tracer. APPARATUS (Software):- cisco Parket tracer Connected protedure: ster 1: state of the network topology; ster: consigne 30 address del3:- consigure the routes; step4:- Test the connection. stel 5:- Explore TCP bunctionalities. mode. PIAGBAM:-Parelt: Thus bunctionalisties and estruction of test using packet trades.

