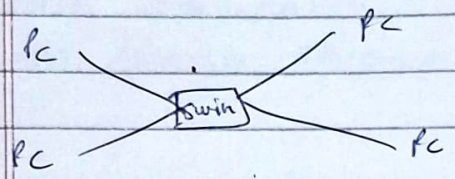
CN - 1 Prac

Star Topo

Step 1:- Take one switch - PT
4 PC

2:- assign IP to PC
click PC0 → Desktop → IP
write - 10.0.0.1 or
192.168.1.1
similarly for PC1, PC2, PC3

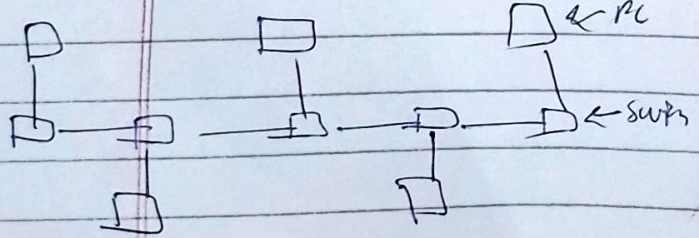
3:- Take POV (mail) and from any PC to PC



Bus Topology

1:- Take 5 PC & 5 Switch
(one switch - PT for one)
& connect PC to switch &
switch to switch

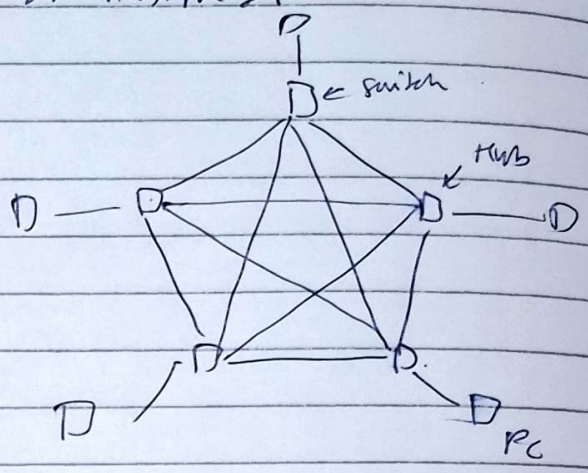
2:- Assign IP



Mesh Topology

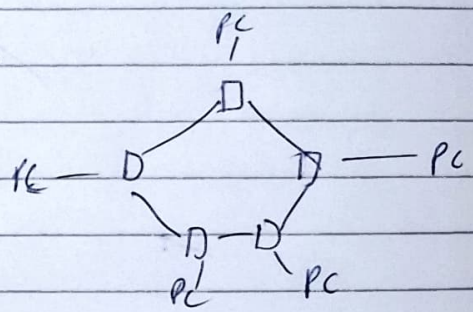
Step 1:- Take 5 Hub - PT or 5 switch PT
& 5 PC.
Connect Hub to PC then Hub
to Hub & then Make a mesh

2:- Assign IP

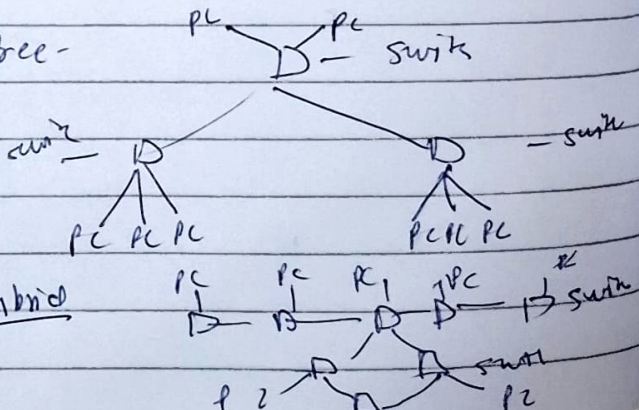


3:- Send POV

Opt
Ring



Tree -



Hybrid

CN-2

Step 1:- Open Cisco Packet
Take 2 PC, 1 2910 switch (Layer 2 switch)

2:- Use copper straight cables to connect
PC & switch (Fastethernet 0/1, 0/2 etc)

3: Assign IP
eg:- PC_0 — 10.10.10.1
PC_1 — 10.10.10.2

4:- On PC_0 → Open cmd → type:
ping 10.10.10.2

or

4(b) PDU packet send → PC_0 → PC_1
→ simulation → click packet →
PDU detail.

CN

P-3

using (RIP)

① Take - (Router-PT) - 3
switch PT - 3 & PC - 6

② give PC IP configuration as —
PC0 - 10.10.10.1
Default-gateway - 10.10.10.0
PC0 - 10.10.10.2
DG - 10.10.10.0 (because both pc in same gateway)

PC2 - 20.20.20.1
DG - 20.20.20.0 - - -

③ go to option → preferences →
click on always show port labels in logical

④ Then config Router
click on Router (R0) → go to config →
interface → fast ethernet 0/0 → click port
status ON, give IP config (10.10.10.0)

⑤ same for R1
R1 → IP (on (20.20.20.0)
& R2 → IP on (30.30.30.0)

⑥ serial ke liye
(1) open R0 → R0 is connected to R1 through
Se 2/0. so click R0 go to serial 2/0 click
on Port ~~add~~ status ON and give IP addm
as 40.40.40.1
same for R1 (but R1 is connected to R0 & R2)
so do 2 IP only
R1 - IP - 40.40.40.2   se 2/0
R1 - IP - 50.50.50.1   se 3/0

& for R2
R2 - serial 2/0 - 50.50.50.2.

⑦ Now Routing RIP
① click on R0 → go to Routing sec
click RIP → add network → 10.0.0.0
& 40.0.0.0
② R1 → add network → 20.0.0.0,
40.0.0.0 & 50.0.0.0
③ R2 → add network → ~~40.0~~ 30.0.0.0.
& 50.0.0.0

⑧ Ping Packets (email icon)

exit

OSPF (P-3)

① Step1 - Take 3 router (1841) & 6 PC
(Nile Router me 2 hi slot hote hai addreke ko)
(or hume 6 PC hai to ye 3 connection hoga R R1-4 & R2-)
To hum R ko extra sto port denge) uske liye

Step2 - click on R0 - Turn off → go to WC-IT →
Take one port and add in zoom out section & Turn on
Similar
R1 → off → WCTT - 2 port - Turn on
R2 → off → " → 1 port → "

Step3 - do connection PC - R0

Step4 - Label IP & config PC IP & Default gateway

PC0 - 192.168.1.2   DG - 192.168.1.3
PC1 - 192.168.2.2   DG - 192.168.2.3
PC2 → 192.168.3.2   DG - 192.168.3.3
PC3 → 192.168.4.2   DG - " " .4.3
PC4 → 192.168.5.2   DG - 192.168.5.3
PC5 - 6.2   6.3

Router - IP
R0 - 192.168.7.2
R1 - 192.168.7.3 & 192.168.8.2
R2 - 192.168.8.3

Step5 - Config PC - IP add as label
& Default gateway (DG)

Step6 - Click on R0 - Fast ethernet port status - ON
→ IP - 192.168.1.3 →
Fast eth 0/1 - 192.168.2.3 → serial 0/0
192.168.7.2

Step7 - click on R1 config Fast eth 0/0 → IP - 192.168.3.3
→ Fast eth 0/1 → IP - 192.168.4.3 → serial 0/0 →
192.168.7.3

Step8 - click R2 → Fa 0/0 → IP - 5.3 →
0/1 → 6.3 → serial 0/0 → 8.3

Step9 - click a oval shape - select fill color →
make on R0 - R1, R1 → R2 & R1 - 0

10 - After area -
click on R0 → cli → exit, exit enter -
R1 > enable
configure terminal # router ospf 1
network 192.168.1.0 0.0.0.255 area 1
2.0

CN Practical

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Practical - 7
{ HTTP & HTTPs :- }

Step 1 :- Take 2 PC & 1 server (S-PT) & 1 switch-PT

2 :- Connect them (lightning cable)

3 :- Label IP address as to 192.168.1.1, 192.168.1.2 for PC0 & PC1 respectively & server as 192.168.1.3

4 :- Now after IP config to server click server → go to services → click HTTP & HTTPS → ON → and at last optional index.htm press edit → change cisco packet tracer as Tutorial & save.

Step 5 - start simulation or realtime send packet check connection.

6 :- click on PC0 or PC1 → go to web server → enter server URL i.e. 192.168.1.3 and enter.

Step 6 :- downloading file.
go to PC1 → Command Prompt → ftp 10.10.10.2
username & password → get hello.txt.
close.

Pr-7
FTP

Step 1 - Take 1 server-PT, ~~1 switch~~ 1 Router 1841, 1 switch 2950 - & 2 PC

Step 2 :- Connect all. Connect PC to switch → Router → server

Step 3 :- Assign IP address

- click on Router, the port is attach to FastEth 0/0, so go to config → Port status ON → IP add as 10.10.10.1 also FastEther 0/1 → Port status → ON → IP add - 192.168.0.1 (DG)
- Assign IP to PCs.
  - click PC0 → Desktop - IP → IP add - 192.168.0.2 & DG - 192.168.0.1
  - click PC1 → Desktop → IP → IP add - 192.168.0.3 & DG - 192.168.0.1
- Assign IP add to server (Make sure server & Router in same network) so, click on server → Desktop → IP
  IP add = 10.10.10.2 → DG = 10.10.10.1

Step 4 :- Make server FTP
click server → goto services → FTP → give username = cisco1 & password = test → click all checkbox & add.

Step 5 :- Click on PC0 → Text editor → write something → save as hello.txt → close. Then again on PC0 → click command prompt → Ping 10.10.10.2 (server) → ftp 10.10.10.2 give username & password → put file.txt → dir {This show upload)

9,10

classmate Date Page

Dh equal to Server IP

FTP :- Pr-7

Step 1:- Take 1 server, 1 2960 switch, 2 PC. Connect them.

2:- Label IP :- Server :- 10.10.10.0

PC_0 - 10.10.10.1 , PC_2 - 10.10.10.2

3:- give IP config -

Go Click server → go to Desktop → IP → 10.10.10.0 .

Now click PC_0 → go to Desktop → IP → 10.10.10.1 → DG = 10.10.10.0

Same for PC_1

4:- FTP server :-

Click on server → services → FTP → for username = cisco1 & password = 123, RWDNL to click & add. → close.

5. Access FTP

Click any PC → go to text editor write & save file → Command prompt → ipconfig → ftp 10.10.10.0 → username & password → dir → help → put file.txt (file name with extension) . (Upload)

To access file go to another PC follow same step at last type ftp get file.txt → dir.

Pr-8

Step 1:- Open wireshark → choose network

2:- You can filter tcp, udp & get packet

3:- A/c to practical To capture packet from e-commerce site

- Go to browser - search flipkart.
- Open command prompt & type ping -- www.flipkart.com (space)

[Note give space & do not use https://)

- You get ip address of flipkart copy this

step 4:- In filter section of wireshark type ip.addr == paste ip address

also

tcp and ip.addr == paste ip address

also for udp

udp and ip.addr == past.

Pr-11 :- for ip to URL remember 8.8.8.8 (dns google) ka hai.

DHCP – automatic assign IP

CN

Pr – 12

Step1 – Take one switch, 1 server (10.0.0.1), 3 PC, 2 Laptop.

Step2 :- Connect using lightning cable PC & Lap to switch & switch to server

Note – switch if show error don't connect then . (4 device to switch)

Click on switch → zoom in → off → Take 1 CC → Put in blank port → Take 2 CC → Put in 2nd blank port → ON.

Step3 :- Config DHCP on server

(A) click server → Desktop → IP config → 10.0.0.1

(B) Click server → services → DHCP → On (10.0.0.1) → Save → ON

Step4 :- Check $PC_0 \rightarrow PC_3$

Click PC_0 → Desktop → IP → DHCP (automatic get address).

To check connectivity (M-1)

click PC_0 → Desktop – Cmd → Ping 10.0.0.2

M-2 Take PDU.