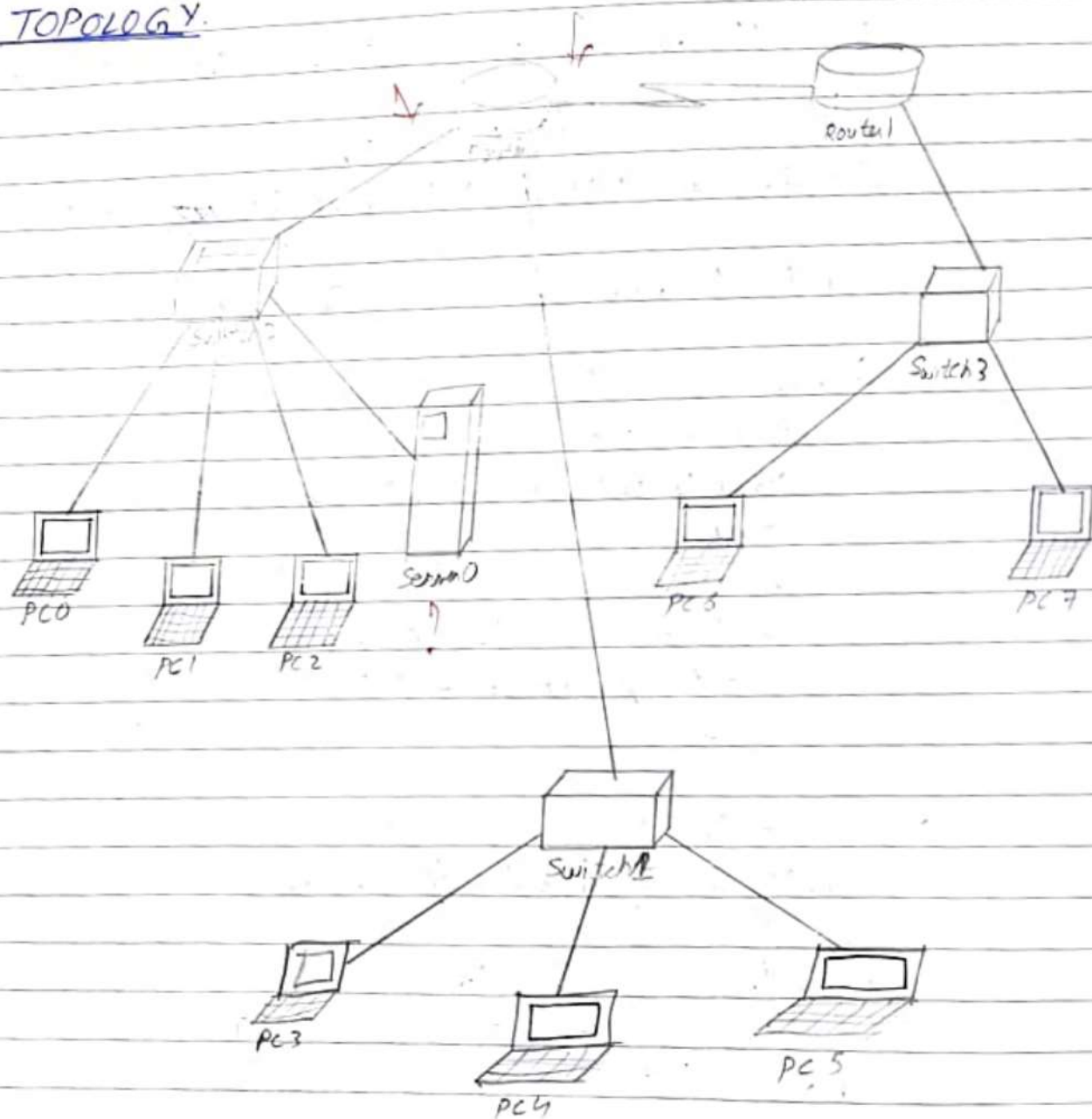# WEEK-5

Config a Dynamic Host Config. Protocol (DHCP) within a LAN &
outside LAN

TOPOLOGY.

Create the topology as shown.

> In the server
  set IP address : 10.0.0.1 (& gateway 10.0.0.25)

  Service : DHCP → on
  Services → DHCP → Default gateway → 10.0.0.25

  Start IP address 10.0.0.2 (save)

  Service pool 1
     gateway → 10.0.0.25
     Start ip address - 20.0.0.2
     add

  Service pool 2
     gateway → 10.0.0.25
     Start ip address - 40.0.0.2
     add.

> In router 0 :-
  • Set 2 network ip address
  • config t.
  • Interface fa 4/0
  • ip address 10.0.0.25 255.0.0.0
  • no shut.

  11th fa 20.0.0.25

  • exit
  • interface fa 0/0
  • ip helper - address 10.0.0.1
  • no shut.

→ Static route (for 40.0:... ip route)
    config t
    ip route 40.0.0.0 255.0.0.0 30.0.0.2

In route 1
  set ip address

  config t
  interface fa0/0
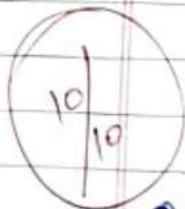 ip address 40.0.0.26 255.0.0.0 .
  no shut

  config t
  interface se2/0
  ip address 30.0.0.0 255.0.0.0
  no shut.

→ Static route for 10 & 20 network
  config t
ip route 10.0.0.0 255.0.0.0 30.0.0.25
ip route 20.0.0.0 255.0.0.0 30.0.0.25

Set ip helper address
  config t
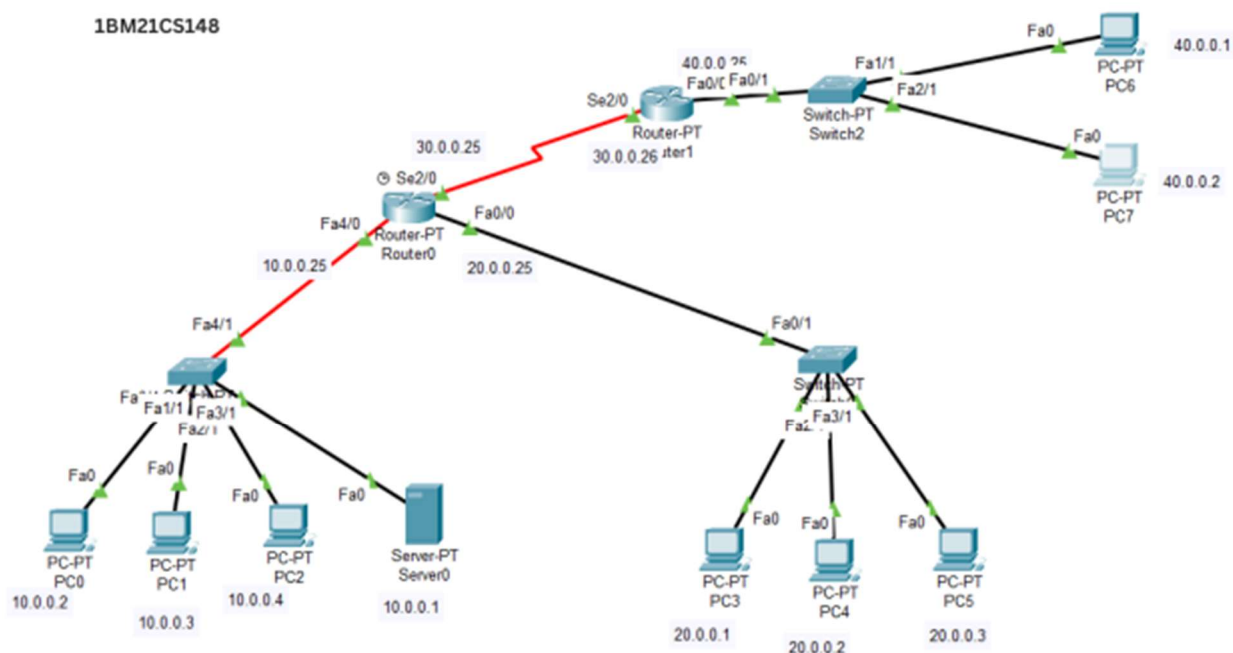 intrface fa0/0
  ip helper-address 10.0.0.1
  no shut.

Output 1
  In any PC
Desktop → IP config → DHCP
(Dynamic IP address is assigned to all PC by
server).

Se2/0
40.0.0 25
Fa0/0 Fa0/1
Fa1/1
Fa0
PC-PT
PC6
40.0.0.1

Router-PT
Switch-PT
Switch2
Fa2/1
Fa0
PC-PT
PC7
40.0.0.2

30.0.0.25
Router-PT
30.0.0.26 uter1

Se2/0
Fa4/0
Fa0/0
Router-PT
Router0
20.0.0.25

10.0.0.25

Fa4/1
Fa0/1
Switch-PT

Fa1/1
Fa3/1
Fa2/1
Fa3/1
Fa2/1

Fa0
Fa0
Fa0
Fa0
Fa0
Fa0
Fa0

PC-PT
PC0
10.0.0.2

PC-PT
PC1
10.0.0.3

PC-PT
PC2
10.0.0.4

Server-PT
Server0
10.0.0.1

PC-PT
PC3
20.0.0.1

PC-PT
PC4
20.0.0.2

PC-PT
PC5
20.0.0.3

Physical	Config	Desktop	Programming	Attributes

IP Configuration   X

Interface   FastEthernet0   ⌄

IP Configuration

● DHCP   ○ Static

IPv4 Address   10.0.0.2

Subnet Mask   255.0.0.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

IPv6 Configuration

○ Automatic   ● Static

IPv6 Address   /

Link Local Address   FE80::260:2FFF:FE75:6CE1

Default Gateway

DNS Server

802.1X