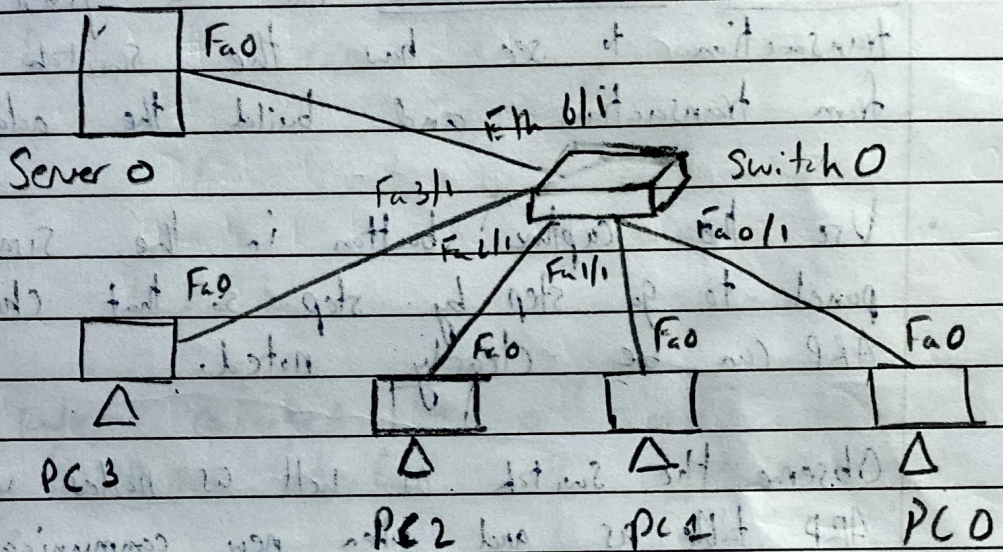## Experiment-8 :- To construct a simple LAN and understand concept and operation of ARP.

Aim - Construct a simple LAN simulate operation of Address Resolution Protocol.

Topology

1. Switch connected to 4 PC's and a Server via four Fastethernet interfaces and are 2 ethernet interfaces respectively.

2. All connections made via Copper ~~cross cable~~ straight-through cable.

Procedure

Open cisco packet tracer and drag the following:

Switch

Pc: Place 3 PC's, each connected to Switch0.

Server: Place 1 Server and connect it to Switch 0

Assign an IP address and Subnet mask to all the devices. then connect them via a switch.

- Use the inspect tool to click on a Pc to view ARP table.
- Select Display the ARP table of all the devices.
- Initially ARP is empty for all

- Also in CLI of Switch, the command show mac address-table can be given on every transaction to see how the switch learns from transactions and build the address table.

- Use the Capture button in the simulation panel to go step by step so that changes in ARP can be clearly noted.

- Observe the switch as well as nodes update the ARP table as and when new communication starts.

Observation

- As the message travels from one source host to its destination host, the ARP table of all devices get updated.