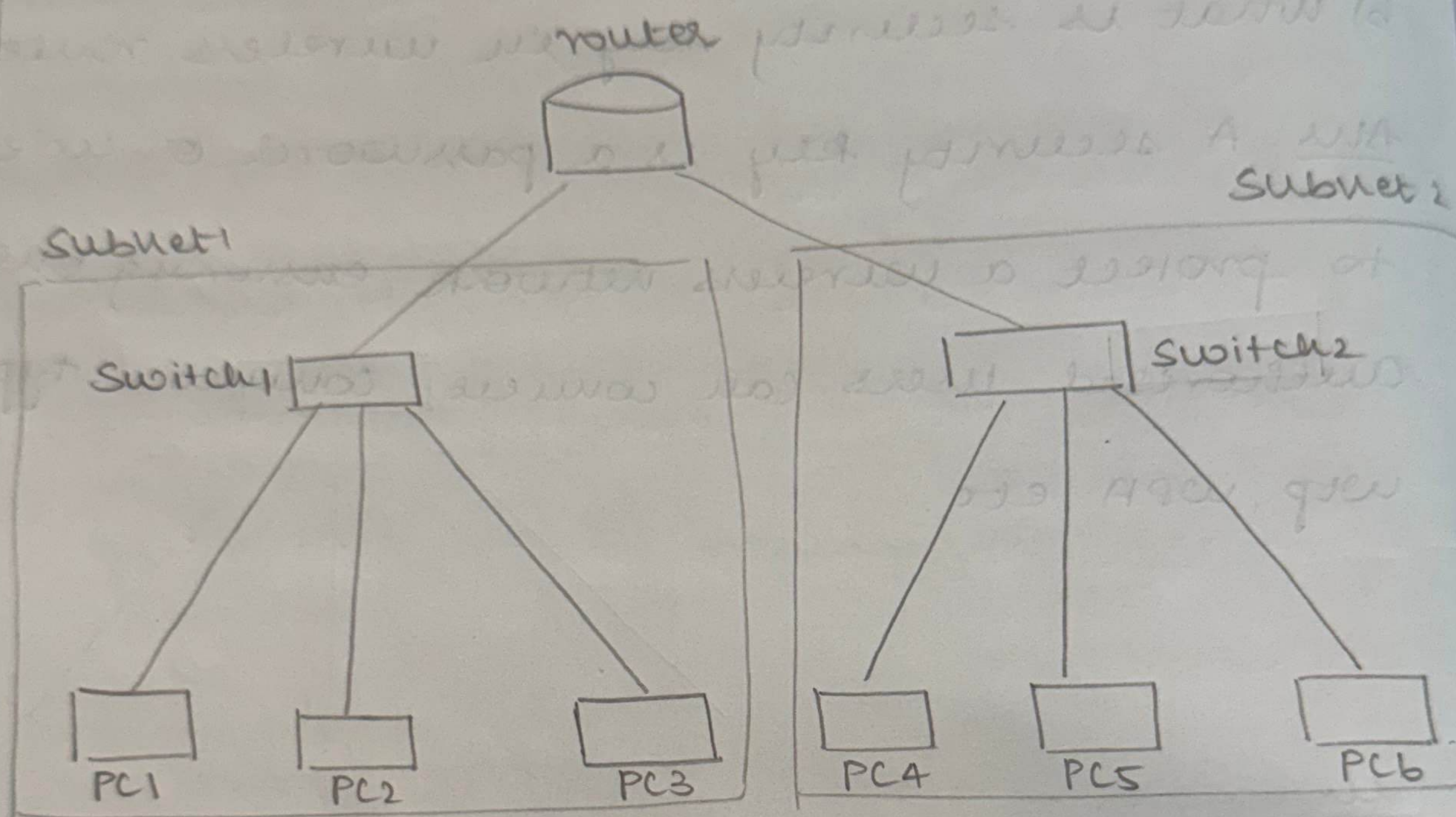# PRACTICAL - 9

Aim:

Implementation of SUBNETTING in Cisco Packet Tracer Simulator.

Student observation Questions

a) Draw your implementation of subnetting

b) write down your understanding of sub netting

Classless IP sub netting is a technique that allows for more efficient use of IP address by allowing for subnet masks that are not just the default masks for each IP class. This means that we can divide our IP address space into smaller subnets, which can be useful when we have a limited number of IP addresses but need for create multiple networks.

---

c) what is to a network?

subnetting number of networks. T

output:

fire L

S

Resu

Th

pac

c) What is the advantage of implementing within a network?

Subnetting is useful when we have a limited number of IP addresses but need to create multiple networks. This also enhances security.

Output:

```
┌─────────────────────────────────────────────┐
│  Simulation Panel                      ⊡ ×   │
│  Event list                                  │
│  ┌─────────────────────────────────────────┐ │
│  │  Vis        time        Last Device     │ │
│  │                                          │ │
│  │            0.000          --            │ │
│  │            0.003          PC1           │ │
│  │            0.005          Switch 1      │ │
│  │            0.008          Router 1      │ │
│  │            0.010          Switch 2      │ │
│  │            0.013          PC9           │ │
│  │            0.015          Switch 2      │ │
│  │            0.018          Router 1      │ │
│  │            0.020          Switch 1      │ │
│  │            0.023          --            │ │
│  ├─────────────────────────────────────────┤ │
│  │  Reset Simulation  ☐ Constant delay     │ │
│  │  Play controls                           │ │
│  │        ◁  ▷  ▷|                          │ │
│  └─────────────────────────────────────────┘ │
└─────────────────────────────────────────────┘
```

fire	Last Status	Source	Dest	Type	color	Time (sec)	Periodic	num
◉	Successful	PC1	PC9	ICMP	▨	0.000	N	0

Result:

Thus, subnetting has been implemented in cisco packet tracer and the output is verified.