<div align="center">

Part B - Micro-Project Report

Title of Micro-Project

Create IPV6 based small Network using simulator

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1. Rationale:

IPv6 is the most recent version of the Internet Protocol. This new IP address version is being deployed to fulfill the need for more Internet addresses. It was aimed to resolve issues that are associated with IPv4. With 128-bit address space, it allows 340 undecillion unique address space. IPv6 is also called IPng (Internet Protocol next generation).

Features of IPv6

- Hierarchical addressing and routing infrastructure.
- Stateful and Stateless configuration
- Support for quality of service (QoS)
- An ideal protocol for neighboring node interaction

2. Aims/Benefits of the Micro-Project:

Aims : Create IPV6 based small Network using simulator.

Benefits :

- We learn All the fundamental concepts of networking.
- We learn How to use simulator (cisco packet tracer).
- All teammates learn how to configure Ipv6 address.
- All teammates learn how to use command related to configuration of Ipv6 address.
- All teammates understand actual process of creation of Ipv6 based network.

3. Course Outcomes Addressed:

- Use Basic concepts Networking for setting-up computer Network.
- Setup a computer Network for specific Requirement.
- Implement subnetting for improved network address management.

4. Literature Review :

In this project we created small Ipv6 based network using cisco packet tracer.It includes different components like PC's,Swithes,Routers,Cables. IPv6 is the most recent version of the Internet Protocol. This new IP address version is being deployed to fulfill the need for more Internet addresses. It was aimed to resolve issues that are associated with IPv4.

With 128-bit address space, it allows 340 undecillion unique address space. IPv6 is also called IPng (Internet Protocol next generation).

5. Actual Methodology Followed:

- Create a group of six students as one group under the guidance of subject teacher for micro project of MIC.
- Select a topic 'Create IPV6 based small Network using simulator' for micro project.
- Collect the information related to topic.
- We created Ipv6 based small network using cisco packet tracer.
- Create a project report .
- We type the required part-B and done proper page set up and submitted to subject teacher.
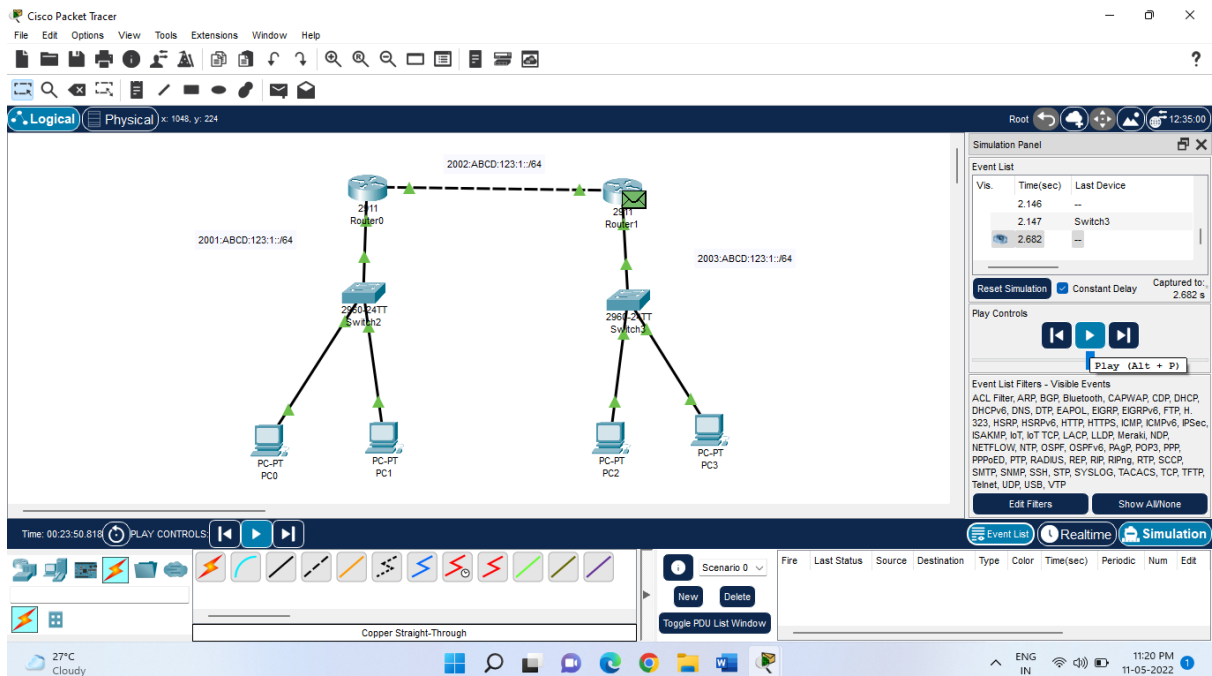
6. Actual Resources Used:

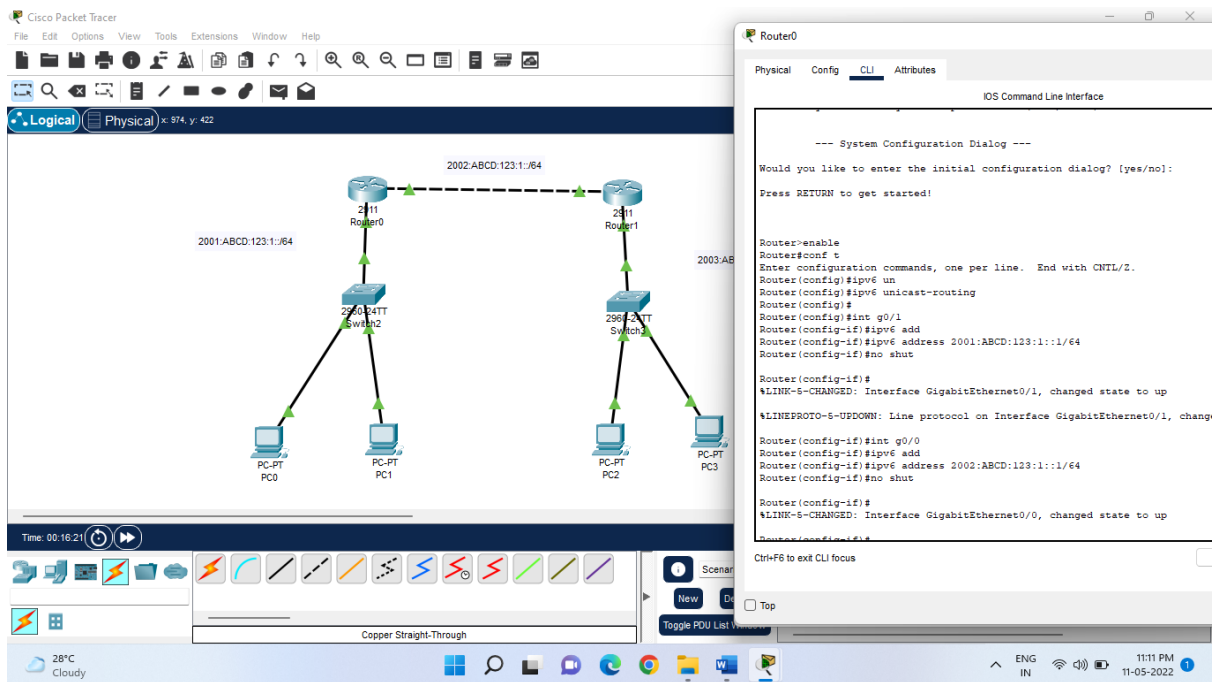| S. No.	Name of Resource/material	Specifications	Qty	Remarks
1	Cisco packet tracer	-		
2	MS Word	-		

7. Skill Developed/Learning outcomes:

- We learnt to use simulator (Cisco packet Tracer).
- We learnt to create small networks.
- We learnt How to configure Ipv6 address.
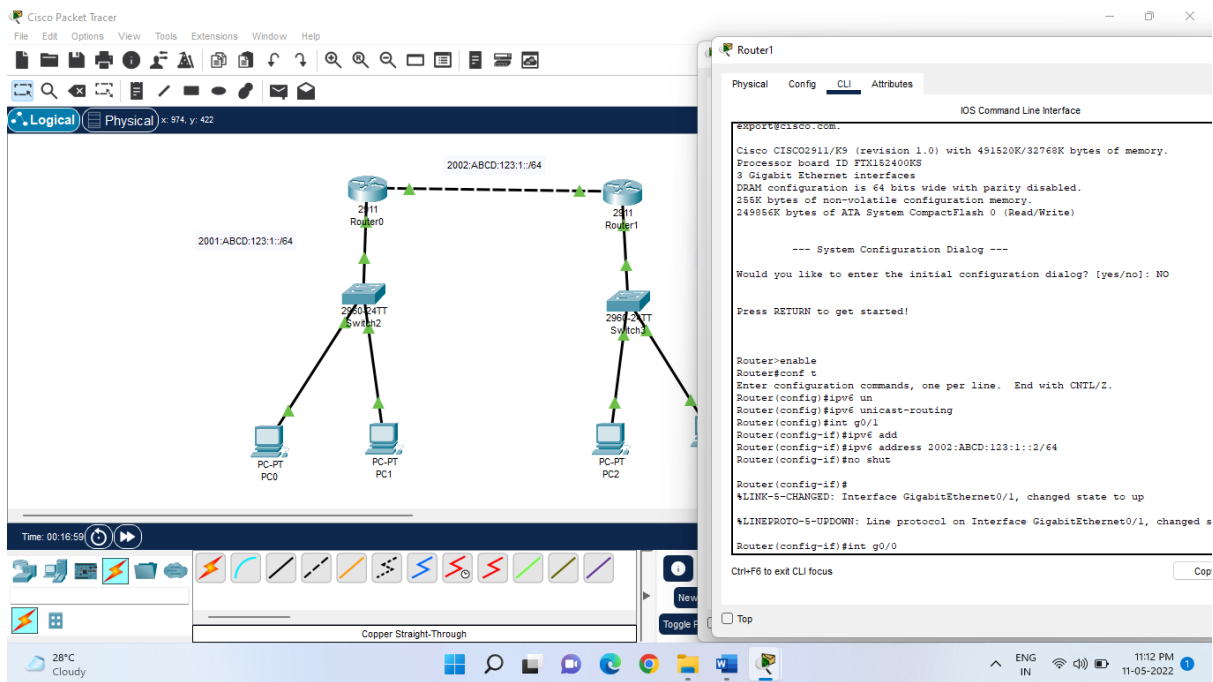- We successfully Created Ivp6 based small network.

8. Outputs of the Micro-Projects:
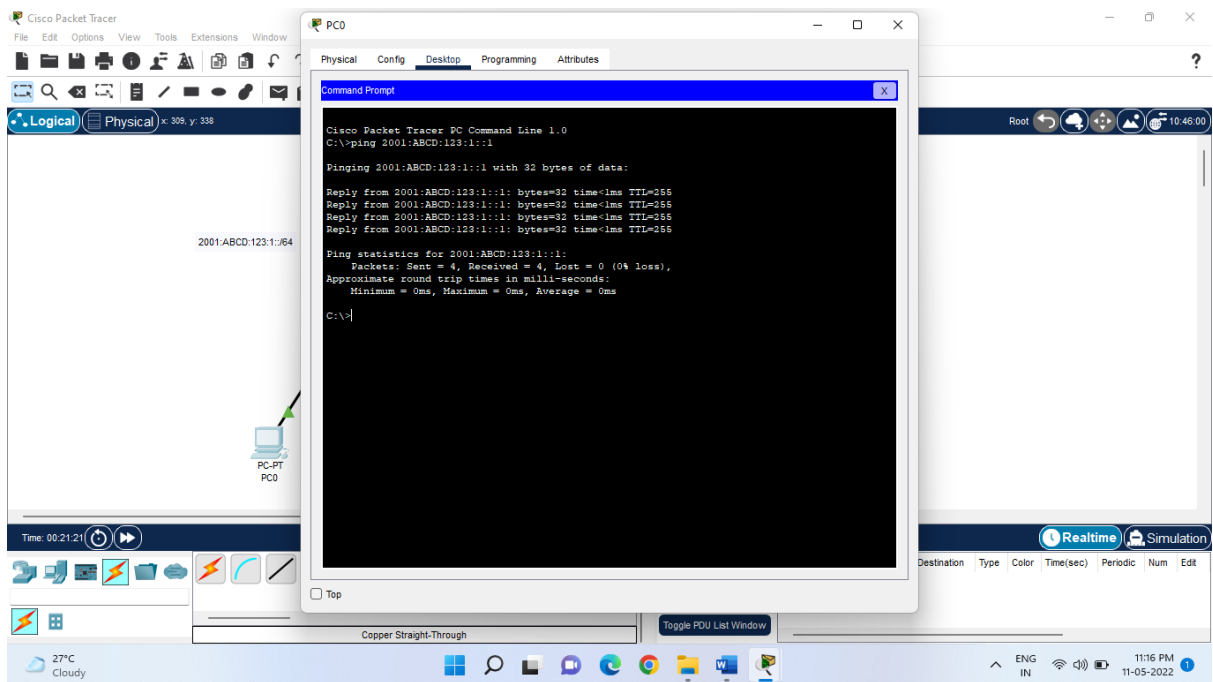
Ipv6 based network:

Router Configuration

Ping

8.References

Sr.No	Name Of Resources	Specification	Quantity
1.	"Fundamentals Of computer Networks" Book.	Sudakshina Kundu	01
2.	Tutorialspoint	Tutorialspoint.com	01
3.	Study Tonight	Studytonight.com	01

9.Conclusion:

In This Micropoject We Successfully created Ipv6 based small network using PC's,Switch,Router,Cables.