



# Vidyavardhini's College of Engineering and Technology

## Department of Artificial Intelligence & Data Science

AY: 2025-26

<b>Class:</b>	<b>TE</b>	<b>Semester:</b>	<b>V</b>
<b>Course Code:</b>	<b>CSC502</b>	<b>Course Name:</b>	<b>WC</b>

<b>Name of Student:</b>	<b>Shreya Sandeep Yadav</b>
<b>Roll No. :</b>	<b>80</b>
<b>Experiment No.:</b>	<b>07</b>
<b>Title of the Experiment:</b>	<b>To design and simulate the environment for Static routing using Cisco packet tracer</b>
<b>Date of Performance:</b>	<b>10/09/25</b>
<b>Date of Submission:</b>	<b>17/09/25</b>

### Evaluation

<b>Performance Indicator</b>	<b>Max. Marks</b>	<b>Marks Obtained</b>
Performance	5	
Understanding	5	
Journal work and timely submission	10	
Total	20	

<b>Performance Indicator</b>	<b>Exceed Expectations (EE)</b>	<b>Meet Expectations (ME)</b>	<b>Below Expectations (BE)</b>
Performance	4-5	2-3	1
Understanding	4-5	2-3	1
Journal work and timely submission	8-10	5-8	1-4

Checked by

**Name of Faculty : Ms. Kshitija Gharat**

**Signature :**

**Date:**



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**Aim:** To design a network with two routers and two PCs and simulate static routing using Cisco Packet Tracer.

### Objective:

To configure static routes on routers for communication between two different networks

To test end-to-end connectivity between PCs using ping command

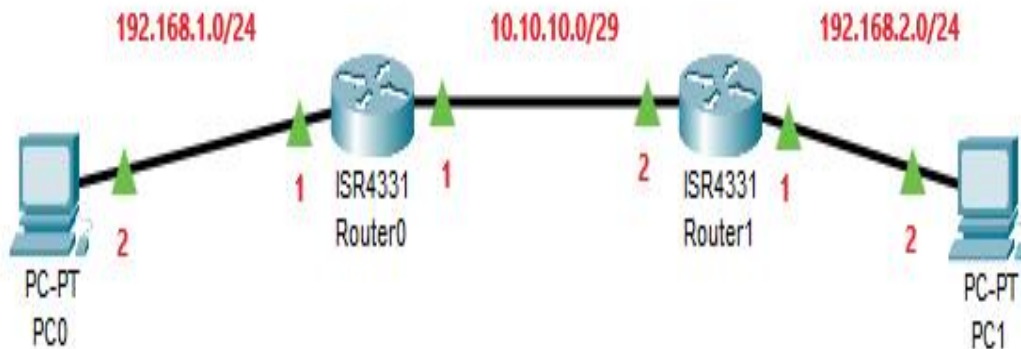
### Requirement:

Cisco Packet Tracer software

### Theory:

Routing is a process of choosing the best route for delivering data to its destination. It is required when data needs to be delivered to a network that is not directly connected to the sender.

Static routing is a type of routing where the administrator manually adds routes to the routing table of each router. It is simple and efficient for small networks but difficult to maintain in large networks.





### Output:

The ping command shows successful replies between PC0 and PC1, proving that static routing is configured correctly.

```
Physical  Config  Desktop  Programming  Attributes
Command Prompt
C:\>ping 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Reply from 192.168.2.2: bytes=32 time<1ms TTL=126
Reply from 192.168.2.2: bytes=32 time<1ms TTL=126
Reply from 192.168.2.2: bytes=32 time<1ms TTL=126
Reply from 192.168.2.2: bytes=32 time<1ms TTL=126

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
```

```
Physical  Config  Desktop  Programming  Attributes
Command Prompt
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time<1ms TTL=126
Reply from 192.168.1.2: bytes=32 time<1ms TTL=126
Reply from 192.168.1.2: bytes=32 time<1ms TTL=126
Reply from 192.168.1.2: bytes=32 time<1ms TTL=126

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
```

### Conclusion:

Static routing enables communication between two PCs connected through different routers. The experiment demonstrates how to configure IP addresses, gateways, and static routes to establish connectivity in a small network using Cisco Packet Tracer.