

**Lab Manual**

**Data Communication Networks**

**BCA324**

# III

**Name:**

**Enrollment NO:**

**Tutorial - 1**

Explore CISCO Packet Tracer in detail.

## Tutorial - 2

**Create** all Network Topology Using Packet Tracer. [ Type of topology Bus,Ring,Mesh,Hybrid,Tree ] Write steps of each networking.

**Tutorial - 3**

**Design** Star topology using Cisco packet tracer.

## Tutorial - 4

**Study of Network IP address of different CLASS A, CLASS B, CLASS C using Cisco packet tracer.**

Necessary Equipment’s:

* 1. 1 Router
* 3 PCs & 3 Laptop’s
* 3 Switch’s (2960-24PT)
* Copper Straight-Through wires

## Tutorial - 5

Explore **5** ways to find the IP Address of your computer. Also explore the commands that you have used to find IP Address.

## Tutorial - 6

Explore the use of ping command line utility.

-t: Pings the specified host until stopped. To stop - type Control-C

-n:number of packets : ping -n no. Of packets

-i: how many time to live the packets (Time to live)

-4: ipv4 address

-6:ipv4 address

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| -t |  |  | Pings the specified host until stopped. To stop type Control-C | |
| -a |  |  | Resolve adresses to hostnames | |
| -n |  |  | Number of echo requests to send | |
| -l |  |  | Send buffer size | |
| -f |  |  | Set *Don't Fragmet flag* in packet (IPv4-only) | |
| -i |  |  | Set *Time To Live* | |
| -v | | | | Set *Type of Service* (Setting has been deprecated) |
| -r | | | | Record route for count hops (IPv4-only) |
| -s | | | | Timestamp for count hops (IPv4-only) |
| -j | | | | Loose source route along host-list (IPv4-only) |
| -k | | | | Strict source route along host-list (IPv4-only) |
| -w | | | | Timeout in milliseconds to wait for each reply |
| -R | | | | Use routing header to test reverse route also  (IPv6-only, deprecated per RFC 5095) |
| -S | | | | Source address to use |
| -c | | | | Routing compartment identifier |
| -p | | | | Ping a Hyper-V Network Virtualization provider address |
| -4 | | | | Force using IPv4 |
| -6 | | | | Force using Ipv6 |

## Tutorial - 7

Explore the route for reaching following website.

[http://www.rku.ac.in](http://www.rku.ac.in/) [http://www.gmail.com](http://www.gmail.com/) [http://www.bhaskar.com](http://www.bhaskar.com/)

## Tutorial - 8

Find the IP address of 5 web sites that you know using NSLOOKUP command. also explore NSLOOKUP in detail