



## SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMKUR-03

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NETWORK PROGRAMMING LAB (7CSL01)

Student Name:	USN:	Batch No:	Date:	
<b>Evaluation:</b>				
Observation writing and File maintenance (10 Marks)	Clarity in concepts (05 Marks)	Implementation and execution of the program (10 Marks)	Viva (10 Marks)	Total (35 Marks)
Sl.No	Name of the Faculty In-Charge			Signature
1.				
2.				

### Question No. B5

Simulate the transmission of ping messages over a network topology consisting of 6 nodes and find the number of packets dropped due to congestion.

#### Pre-requisites:

#### Ping

Ping is a computer network administration software utility used to test the reachability of a host on an Internet Protocol network. It is available for virtually all operating systems that have networking capability, including most embedded network administration software.

#### Write a TCL(Tool command language) Script.

1. Declare a network simulator.
2. Create and open a tracefile and a NAM trace file in write mode which is used to store and display the output.
3. Create the nodes.
4. Create link between nodes.
5. Setup queue sizes.
6. Declare agent/protocols.
7. Attach the ping with the respective nodes.
8. Connect the ping from source to destination.
9. Write procedure for ping agent.
10. Define a 'finish' procedure.
  - o Dump all traces and close the files.
  - o Execute NAM animation file.
  - o Check the events in trace file.
  - o For all the events 'd' (d denotes dropped packets), count number of packets.
11. Schedule the events.
12. Start network simulation.