



SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMKUR-03
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
NETWORK PROGRAMMING LAB (7CSL01)

Program No. B2			Date:	
Student Name:		USN:		Batch No:
Evaluation:				
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. 2

Simulate a three node point to point network with duplex links between them. Set queue size and vary the bandwidth and find number of packets dropped.

Pre-requisites:

Step-1: Write a TCL(Tool command language) Script for simulation.

1. Declare a network simulator.
2. Create and open a tracefile(lab1.tr) and a Network animator(NAM trace) file in write mode which is used to store and display the output.
3. Create 4 nodes.
4. Create 2 Duplex links and 2 simplex links.
5. Set the queue size and monitor the queue.
6. Set TCP connection between nodes.
7. Attach FTP over TCP.
8. Attach TELNET over UDP.
9. Define source and destination nodes.
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 'r' (r denotes received packets), count number of packets and size of the packet.
 - o Calculate and display the throughput of FTP and TELNET application.
11. Schedule the events.
12. Start network simulation.

Step-2: Run the simulation program: `ns lab1.tcl`

Step-3: Now press the play button in the simulation window and the simulation will begin.