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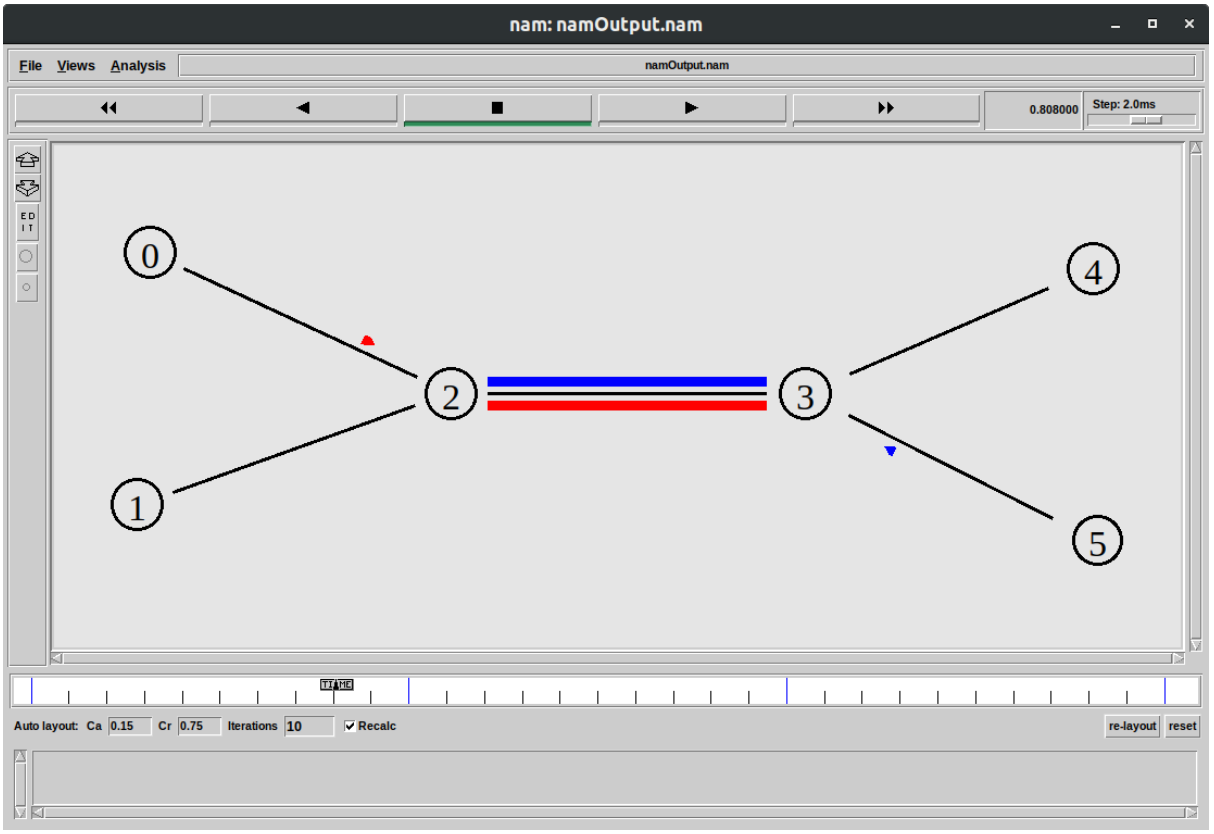
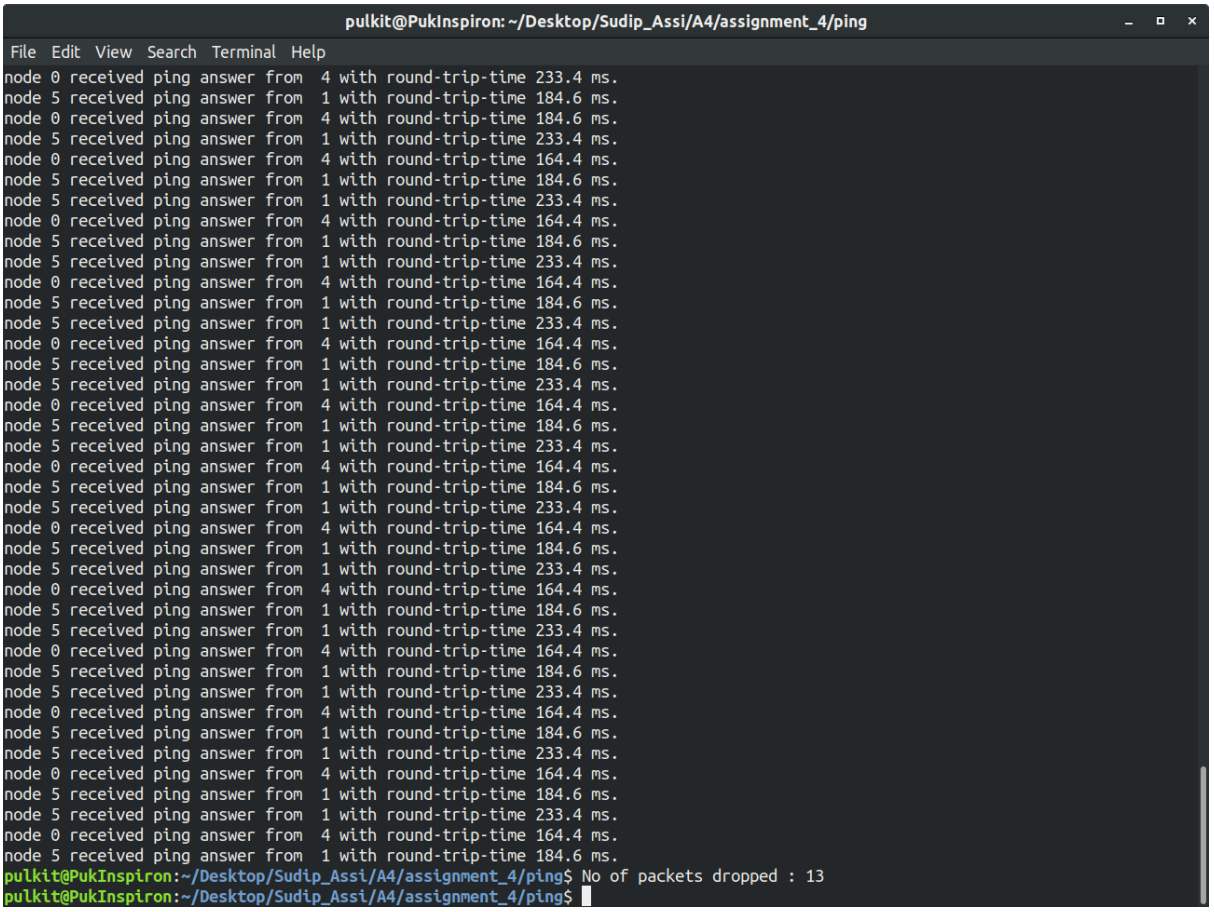
Batch:CS-2

Class: B.Tech(III) CSE
Subject Code: CSN-361

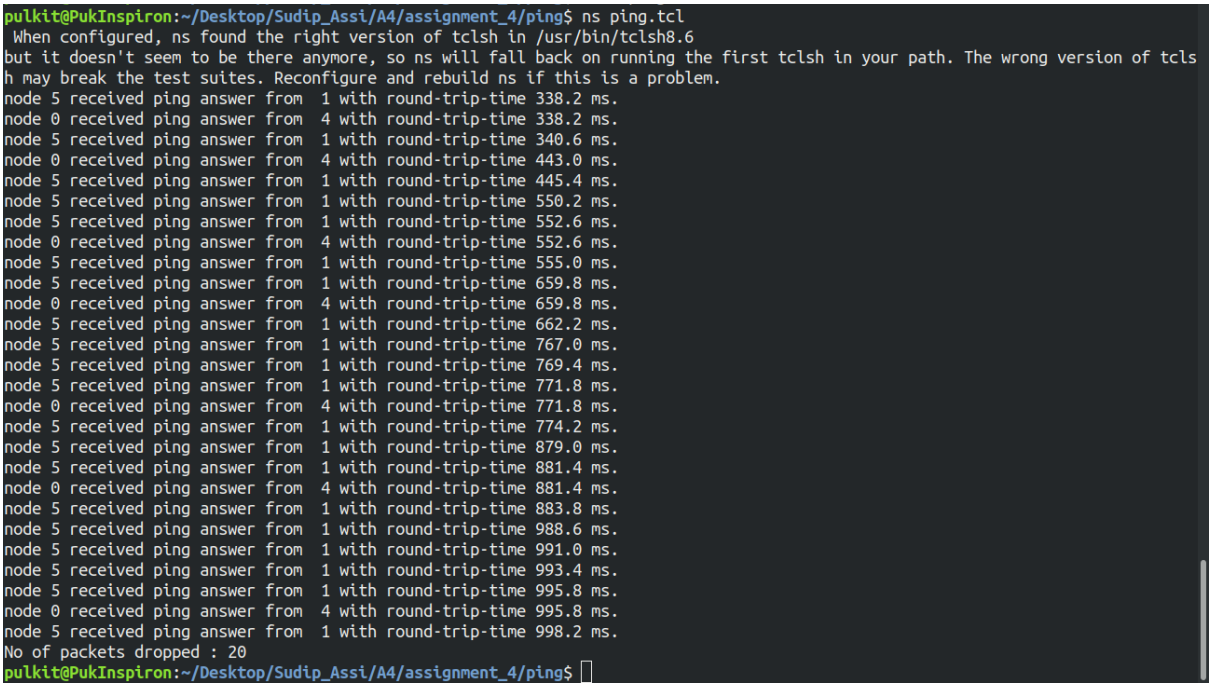
Assignment L4

1. **Write a Network Simulator (NS2) code to simulate a three node network with duplex links among them as shown in figure. Show the topology using NAM. Study the variation in number of packets dropped with the variation of the queue size in the nodes and with the variation of the bandwidth of the links.**



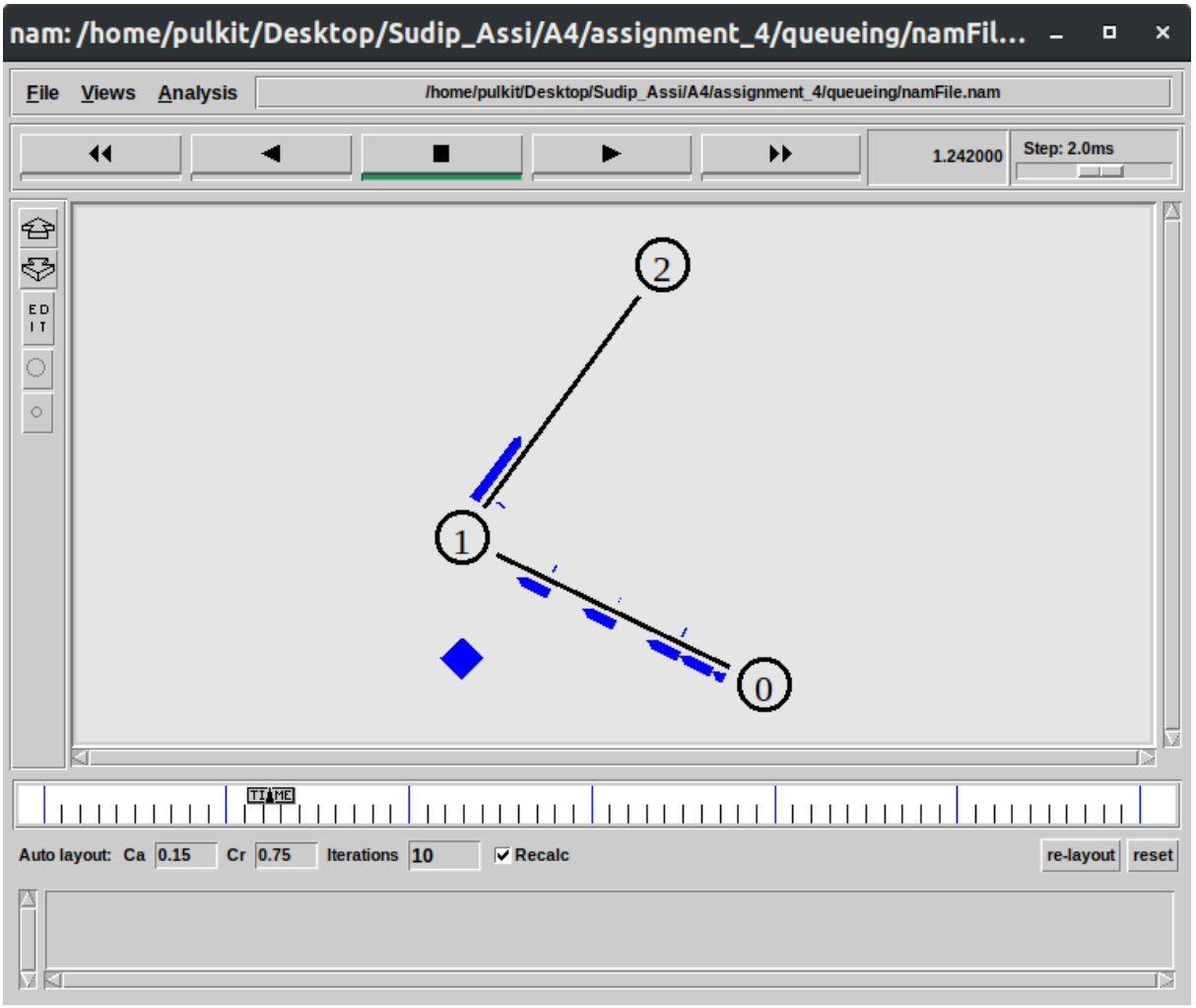


(when bandwidth is 0.01)



(when bandwidth is 0.005)

2. **Write a Network Simulator (NS2) code to simulate the transmission of ping messages over a network topology consisting of 6 nodes and find the number of packets dropped due to congestion. Study the variation in number of packets dropped with the variation of the queue size in the nodes and with the variation of the bandwidth of the links.**
   Nodes are connected as follows: 0-2, 1-2, 2-3, 3-4 and 3-5
   Packet transmissions: 0-4 and 5-1




```
pulkit@PukInspiron:~/Desktop/Sudip_Assi/A4/assignment_4/queueing$ ns queue.tcl
 When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. The wrong version of tcls
h may break the test suites. Reconfigure and rebuild ns if this is a problem.
pulkit@PukInspiron:~/Desktop/Sudip_Assi/A4/assignment_4/queueing$ No of packets dropped : 60
```

(When queue sizes are 6(0-1) and 5(1-2))

```
pulkit@PukInspiron:~/Desktop/Sudip_Assi/A4/assignment_4/queueing$ ns queue.tcl
 When configured, ns found the right version of tclsh in /usr/bin/tclsh8.6
but it doesn't seem to be there anymore, so ns will fall back on running the first tclsh in your path. The wrong version of tcls
h may break the test suites. Reconfigure and rebuild ns if this is a problem.
pulkit@PukInspiron:~/Desktop/Sudip_Assi/A4/assignment_4/queueing$ No of packets dropped : 3
```

(When queue sizes are 7(0-1) and 6(1-2))