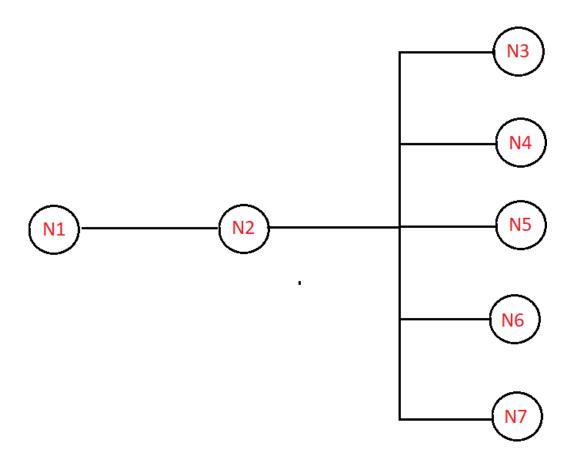
## **Problem statement**

Create the following simple fixed topology with point to point connection among all nodes using NS3. The client node N1 is connected to server nodes N3, N4, N5, N6 and N7 through the router N2. The server nodes are connected in bus topology in a LAN.



- a) Start the TCP application on N3 and at t=1s and send TCP packets each of size 2048 bytes to N1 till t=3secs. At t=2s start sending UDP packets each of size 1024 bytes to N1 from N7. Run simulation till t=5secs.
- b) Generate trace-file and view all performance metrics using tracemetrics.
- c) Generate pcap files of links N2-N3, N2-N4 and N2-N7 and analyze packet details using wireshark.