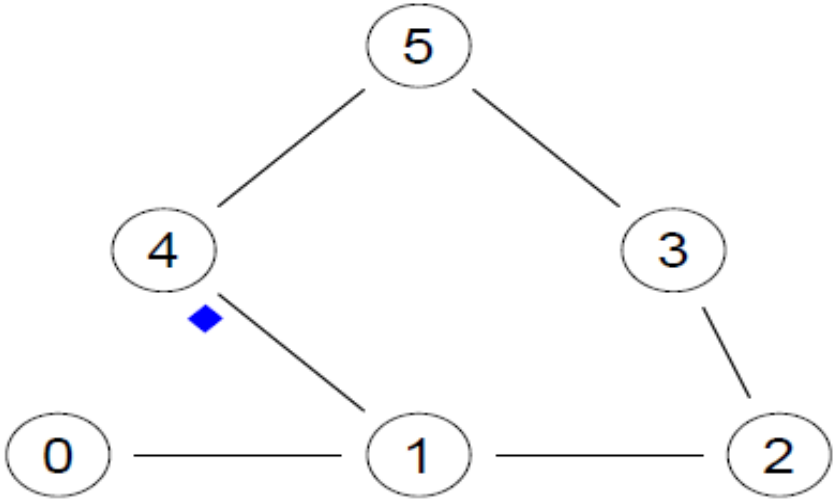
Assignment3

1. Create 6 wired node with proper orientation in the following **figure**. The links are duplex-link with 0.3Mb bw, 10ms delay, and droptail queue. The tcp agent with ftp traffic start at 0.1s and stop at 12.0s between source node-id 0 to destination node-id 5. The default static routing with shortest route, used by ns, will chose the route 0-1-4-5 for setting connections.



i. Calculate the packet sent and received.
ii. Disconnected the link between nodes n1 & n4 from time instance 1.0s to 4.5s. Calculate the packet loss when the link become disconnected.
iii. Use dynamic routing connectivity when the link between n1 & n4 is

2. Write simulation programs for comparing different routing protocols in wireless networks using parameter throughput, delay, packet loss, and normalized routing overhead with respect to increasing the simulation time from 50s to 300s and packet sending rate from 0.2 to 2.0.
(Routing protocols: AODV, DSR, DSDV, DumbAgent, TORA & AOMDV.) The scenario is given below

SL NO.	PARAMETERS	DETAILS
1	Channel type	Wireless channel
2	Transmission range	250 m
3	No. of nodes	100
4	Maximum connection	50
5	Simulation time	50s to 300s
6	Terrain area	500*500 m^2
7	Traffic type	CBR
8	Node movement	Random way point
9	Antenna type	Omni directional
10	Radio propagation	Two ray ground
11	Mac type	IEEE 802.11
12	Packet size	256 bytes
13	Rate	0.2 to 2.0