CSE304-COMPUTER NETWORKS LAB

CYCLE SHEET-II

Implement the following in C:

1. Write a program for error detecting code using CRC-CCITT (16- bits) and Hamming code generation.
2. Write a program for distance vector algorithm to find suitable path for transmission.
3. Write a program for simple RSA algorithm to encrypt and decrypt the data.
4. Implement selective and repeat ARQ.

SIMULATION EXERCISES

1. Simulate a three nodes point – to – point network with duplex links between them. Set the queue size and vary the bandwidth and find the number of packets dropped.
2. Simulate a four node point-to-point network with the links connected as follows:

   n0 – n2, n1 – n2 and n2 – n3. Apply TCP agent between n0-n3 and UDP between n1-n3. Apply relevant applications over TCP and UDP agents changing the parameter and determine the number of packets sent by TCP / UDP.
3. Simulate the different types of Internet traffic such as FTP and TELNET over a network and analyze the throughput.
4. Simulate the transmission of ping messages over a network topology consisting of 6 nodes and find the number of packets dropped due to congestion.