**CHECKSUM PROGRAM**

#include<stdio.h>

unsigned fields[10];

unsigned short checksum()

{

int i;

int sum=0;

printf("Enter IP header information in 16 bit words\n");

for(i=0;i<9;i++)

{

printf("Field %d\n",i+1);

scanf("%x",&fields[i]);

sum=sum+(unsigned short)fields[i];

while (sum>>16)

sum = (sum & 0xFFFF) + (sum >> 16);

}

sum=~sum;

return (unsigned short)sum;

}

int main()

{

unsigned short result1, result2;

//Sender

result1=checksum();

printf("\n COmputed Checksum at sender %x\n", result1);

//Receiver

result2=checksum();

printf("\n COmputed Checksum at receiver %x\n", result2);

if(result1==result2)

printf("No error");

else

printf("Error in data received");

}