Lab 2 sp txt

#include <iostream>

#include <stdio.h>

using namespace std;

const unsigned short p=16,r=3, n=7;// packet length

unsigned short packets[p] = { 0x45, 0x27, 0x16, 0x0b, 0x62, 0x53, 0x4e, 0x31,

0x2c, 0x1d, 0x74, 0x58, 0x3a, 0x69, 0x7f, 0x00 };

unsigned short vec\_err[n] = {0x40, 0x20, 0x10, 0x08, 0x04, 0x02, 0x01};

unsigned short polinom = 0x58, i, j, k=4, l, packet\_err,result, rem;

extern void output\_screen(unsigned short);

int main()

{

cout << "Input position number of error by code, please...\n"; cout<<"\n";

cin >> i; cout<<"\n";

cout << "Input packet number, please...\n"; cout<<"\n";

cin >> j; cout<<"\n";

if ((i>(n-1)) | (j>(p-1))) { cout<<"Out of range!\n"; cout<<"\n"; goto end; }

packet\_err = packets[j] ^ vec\_err[i];

rem=packet\_err;

cout << "The false packet(1,0)=";

output\_screen (packet\_err); cout<<"\n";cout<<"\n";

// Division

t=1;

for (l = 0; l<k; l++)

{ result=rem&vec\_err[l];

if (result!=0) {

cout<<"\n";

cout<<"xor";//19

cout<<"\n";

cout<<" "; output\_screen (polinom);//22

cout<<"\n";

cout<<"-------";//22

cout<<"\n";

cout<<" R";<< t << "= ";//18

I += 1;

rem = rem^polinom;

output\_screen (rem);

getchar();

}

polinom = polinom>>1;

}

cout<<"\n";cout<<"\n";

cout << "The remainder R is: "; output\_screen (rem);

cout<<"\n";cout<<"\n";

if (rem != 0) cout << "The error is present!";

cout << "\n"; cout<<"\n";

getchar();

end: return(0);

}

void output\_screen(unsigned short var)

{ unsigned short var\_1;

var\_1=var;

for (int j = 0; j<n; j++)

{

var = var&vec\_err[j];

if (var != 0) cout << "1"; else cout << "0";

var=var\_1;

}

return;

}