

## Experiment No: 2

**NAME OF THE EXPERIMENT:** Cyclic Redundancy Check

**AIM:** Write a C program to implement on a data set characters the three CRC polynomials – CRC 12, CRC 16, and CRC CCIP.

**Source Code:**

```
// program for Cyclic Redundancy Check
```

```
#include<stdio.h>
#include<conio.h>
int main(void)
{
int data[50],div[16],rem[16];
int datalen, divlen, i,j,k;
int ch;
clrscr();
printf("Enter the data: ");
i = 0;
while((ch = fgetc(stdin)) != '\n')
{
```

```

if(ch == '1')
data[i] = 1;
else
data[i] = 0;
i++;
}
datalen = i;
printf("\nEnter the divisor: ");
i = 0;
while((ch = fgetc(stdin)) != '\n')
{
if(ch == '1')
div[i] = 1;
else
div[i] = 0;

i++;
}
divlen = i;
for(i = datalen ; i < datalen + divlen - 1 ; i++)
data[i] = 0;
datalen = datalen + divlen - 1;
for(i = 0 ; i < divlen ; i++)
rem[i] = data[i];
k = divlen-1;
while(k < datalen)
if(rem[0] == 1)
{
for(i = 0 ; i < divlen ; i++)
rem[i] = rem[i] ^ div[i];
}

```

```

else
{
if(k == datalen-1)
break;
for(i = 0 ; i < divlen-1 ; i++)
{
rem[i] = rem[i+1];
printf("%d",rem[i]);
}
rem[i] = data[++k];
printf("%d\n",rem[i]);
}
j=1;
for(i = datalen - divlen + 1 ; i < datalen ; i++)
{
data[i] = rem[j++];
}
printf("\nThe data to be sent is\n");
for(i = 0 ; i < datalen ; i++)
printf("%d",data[i]);
getch();
return 0;
}

```

### **OUTPUT:**

Enter the data: 10101111

Enter the divisor: 1011

0011

0111

1111

1001

0100

1000

0110

The data to

be sent is

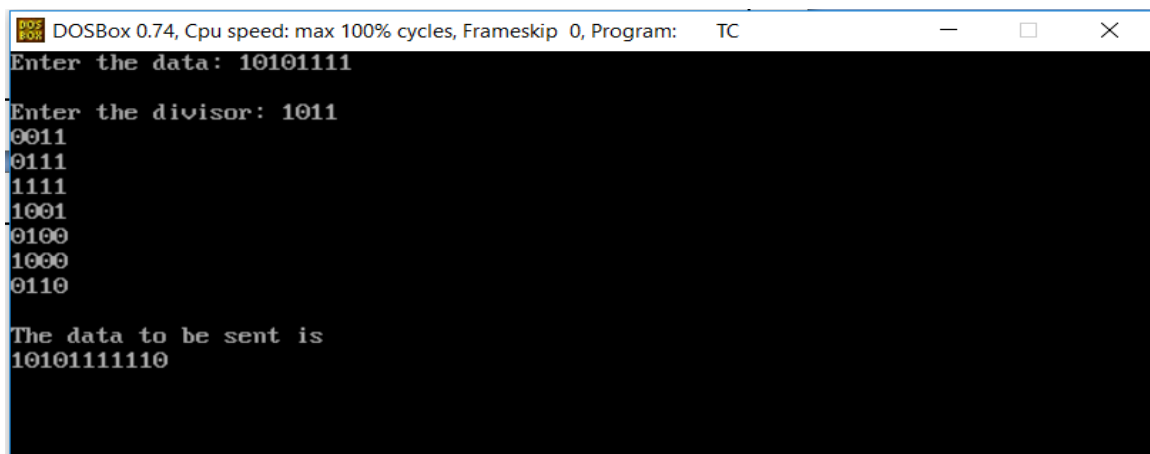
101011111

10

**OUTPUT**

**CONSOL**

**E:**



```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
Enter the data: 10101111
Enter the divisor: 1011
0011
0111
1111
1001
0100
1000
0110

The data to be sent is
1010111110
```