CRC code:

```c
#include <stdioh>
#include <string.h>
#define N strlen(divisor)

char data[28];
char rem[28];
char divisor[10];
int dlength, i, j;

void XOR() {
    for (j=1; j<N; j++)
        rem[j] = ((rem[j] == divisor[j] ? '0' : '1');
}

void receiver() {
    printf("Enter the received data");
    scanf("%s", data);
    printf("\n\n");
    printf("Data received : %s", data);

    crc();

    for (i=0; (i <N-1) && (rem[i] != '1'); i++);
    if (i<N-1)
        printf("\n Error detected \n\n");
    else
        printf("\n No error detected \n\n");
```

```
void crc () {
    for (i=0; i<N; i++)
        rem[i] = data[i];
    do {
        if (rem[0] == '1')
            XOR();

        for (j=0; j<N-1; j++)
            rem[j] = rem[j+1]
        rem[j] = data[i++];
    }

    while (i <= dlength + 16);
}

int main ()
{
    int c=0;

    printf ("\n Enter data to be transmitted :");
    scanf (" %s", data);
    printf (" \n Enter the Divisor : ");
    scanf ("%s ", divisor);
    dlength = strlen (data);
    for (i = dlength; i < dlength +16; i++)
        data[i] = '0';
    printf ("\n");
```

```c
    printf("\n Data padded with n-1 zeros : %d",
    data);

    printf("\n");

    crc();

    printf("\n CRC or Check value is : %s", rem);
    printf("\n rem strlen is : %d", strlen(rem));
    {
        printf("\n %s", data);
        data[i] = rem[c++];
    }

    printf("\n");
    printf("\n final data to be sent : %s",
    data);
    printf("\n\n");
    receiver();
    return 0;
}
```

```
/tmp/vqkx6zRWxE.o
Enter data to be transmitted: 110101
Enter the Divisor: 1011
Data padded with n-1 zeros : 110101000000000000000

CRC or Check value is : 110
 rem strlen is : 3
 110101000000000000000
 110101000000000000100
 110101000000000000110

 Final data to be sent : 110101000000000000110

Enter the received data: 110101
Data received: 110101
No error detected
```