

CRC Assignment Data Communication

1. Calculate CRC for 1 Character of your First Name where P = 101, FCS = 2bit.
2. Calculate CRC for 2 Character of your First Name where P= 110101 FCS = 5 bit.

Answer the Question

$$\begin{aligned}
 1. \quad D &= 8 \text{ bit} = \text{'M'} = 0100 \ 1101 \ (8 \text{ bit}) \\
 D &= 100 \ 1101 \ (7 \text{ bit}) \\
 2^2 D &= 100 \ 110100
 \end{aligned}$$

$$\begin{array}{r}
 101 \mid 100 \ 110 \ 100 \qquad \qquad \qquad \mid 101 \ 101 \ 0 \\
 101 \\
 \hline
 00111 \ 0 \ 100 \\
 101 \\
 \hline
 0100 \ 100 \\
 101 \\
 \hline
 00110 \ 0 \\
 101 \\
 \hline
 0110 \\
 101 \\
 \hline
 011
 \end{array}$$

$$\begin{aligned}
 2^2 D &= 100 \ 110100 \\
 FCS &= \qquad \qquad 11
 \end{aligned}$$

$$\begin{array}{r}
 \hline
 CRC \qquad 100 \ 110111
 \end{array}$$

2. D = 16 bit = 'MU' = 0100110101010101
 D = 100110101010101 (15 bit)
 $2^5 D$ = 100110101010101 00000

110101 | 10011010101010100000 | 111 111 001 001 001
 110101

 0100111
 110101

0100100
 110101

0100011
 110101

0101100
 110101

0110011
 110101

000110011
 110101

000110010
 110101

000111000
 110101

0011010

$2^5 D$ = 100110101010101 00000
 FCS = 11010

 CRC = 100110101010101 11010