

2018 (Spring)
Q. No 3 (b)

Name: Suman Dervkota

Sender

$$\begin{array}{r}
 1011 \overline{) 1010011010001001} \\
 \underline{1011} \\
 000010 \\
 \underline{0000} \\
 0101 \\
 \underline{0000} \\
 1011 \\
 \underline{1011} \\
 0000 \\
 \underline{0000} \\
 0001 \\
 \underline{0000} \\
 0010 \\
 \underline{0000} \\
 0100 \\
 \underline{0000} \\
 1000
 \end{array}$$

$$\begin{array}{r} - 1011 \downarrow \\ 0110 \end{array}$$

$$\begin{array}{r} - 0000 \\ 1100 \end{array}$$

1100 - CRC

At receiver: (assuming error)

$$1011 \overline{) 10110110101101}$$

$$\begin{array}{r} - 1011 \downarrow \\ 0000 \end{array}$$

$$\begin{array}{r} - 0000 \downarrow \\ 0001 \end{array}$$

$$\begin{array}{r} - 0000 \downarrow \\ 0011 \end{array}$$

$$\begin{array}{r} - 0000 \downarrow \\ 0110 \end{array}$$

$$\begin{array}{r} - 0000 \downarrow \\ 1101 \end{array}$$

$$\begin{array}{r} - 1011 \downarrow \\ 1100 \end{array}$$

$$\begin{array}{r} - 1011 \downarrow \\ 1111 \end{array}$$

$$\begin{array}{r} - 1011 \downarrow \\ 1001 \end{array}$$

$$\begin{array}{r} - 1011 \downarrow \\ 0000 \end{array}$$

$$\begin{array}{r} - 0000 \downarrow \\ 0000 \end{array}$$

$$\begin{array}{r} - 0000 \downarrow \\ 0000 \end{array}$$

At receiver (Assuming no error)

$$\begin{array}{r}
 1011 \overline{) 1010011010110100100001} \\
 \underline{-1011} \checkmark \\
 00010 \\
 \underline{0000} \checkmark \\
 0101 \\
 \underline{-0000} \checkmark \\
 1011 \\
 \underline{-1011} \checkmark \\
 0000 \\
 \underline{-0000} \checkmark \\
 0001 \\
 \underline{-0000} \checkmark \\
 0010 \\
 \underline{-0000} \checkmark \\
 0101 \\
 \underline{-0000} \checkmark \\
 1011 \\
 \underline{-1011} \checkmark \\
 0000 \\
 \underline{-0000} \checkmark \\
 000
 \end{array}$$

2028 (Fall)

Sender

102) 1 1 2 0 2 0 2 0 0 (1 1 0 1 1 1 0

- 1 0 1 ↓

1 0 0

- 1 0 1 ↓

0 1 2

- 0 0 0 ↓

1 1 0

- 1 0 1 ↓

1 1 1

- 1 0 1 ↓

1 0 0

- 1 0 1 ↓

0 1 0

- 0 0 0

0 1 0 → CFC

Receiver

No. error

$$101 \overline{) 1110 \ 2011 \ 0 \ 110 \ 1110}$$

$$\underline{-101} \downarrow$$

$$100$$

$$\underline{-101} \downarrow$$

$$011$$

$$\underline{-000} \downarrow$$

$$110$$

$$\underline{-101} \downarrow$$

$$111$$

$$\underline{-101} \downarrow$$

$$101$$

$$\underline{-101} \downarrow$$

$$000$$

$$\underline{-000}$$

$$00$$

2019.

Sender

$$10111 \overline{) 10100111100000110011011110}$$

$$\underline{-10111} \downarrow$$

$$00111$$

$$\underline{-00000} \downarrow$$

$$01111$$

$$\underline{-00000} \downarrow$$

$$11111$$

$$\underline{-10111} \downarrow$$

$$10001$$

$$\underline{-10111} \downarrow$$

$$01100$$

$$\underline{-00000} \downarrow$$

$$11000$$

$$\underline{-10111} \downarrow$$

$$0011110$$

$$\underline{-10111} \downarrow$$

$$10010$$

$$\underline{-10111} \downarrow$$

$$01010$$

$$\underline{-00000} \downarrow$$

$$2010 \rightarrow CRC$$

Receiver (no error)

$$\begin{array}{r}
 10111 \overline{) 10100111201010(100110111} \\
 \underline{-10111} \downarrow \\
 00111 \\
 \underline{-00000} \downarrow \\
 01111 \\
 \underline{-00000} \downarrow \\
 11111 \\
 \underline{-10111} \downarrow \\
 10001 \\
 \underline{-10110} \downarrow \\
 01100 \\
 \underline{-00000} \downarrow \\
 011001 \\
 \underline{-10111} \downarrow \\
 11100 \\
 \underline{-10111} \downarrow \\
 0010111 \\
 \underline{-10111} \downarrow \\
 00000 \\
 \underline{-00000} \\
 0000
 \end{array}$$