

Computer Network(CSC 503)

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Lecture 15

Problem solving

Example 1: A bit stream 10011101 is transmitted using the standard CRC method. The generator polynomial is $x^3 + 1$.

- 1. What is the actual bit string transmitted?
- 2. Suppose the third bit from the left is inverted during transmission. How will receiver detect this error?
- 3. Compute the efficiency of data transmission

Contd...

Example 2: The received string of bits is 110011001100 is it acceptable ? If so what is the data bit sequence? Consider the divisor is 10101

Contd...

Example 3: Flag pattern use to transmit a frame is 01111110. Sender Host has 110111111111111100111111111111 data to transmit. Write the frame patten generated by Data link layer using bit stuffing.

Contd...

Example 4: Compute the LRC for the following data. Also write the what data bits sending would be transmitting

1110111

1101111

0101010

1010101

Contd...

Example 5: Compute the checksum for following data. Also write data received by the receiver.

1110111

1101111

0101010

1010101

Contd...

Example 5: Following is the data received by the receiver. Specify whether receiver is accept the data or will reject the data. Receiver will make the decision after computing the checksum.(Write all the steps for computation)

11011010 10011001 11100010 00100100 10000100