COMPUTER NETWORKING LAB

LAB4:   22/11/2022

Marks : 10 Marks

Objective

To understand the concept byte stuffing and bit stuffing for framing in data link layer.

Assume that the data link layer uses following framing techniques.

1. Character or Byte stuffing : STX = 0x02, ETX = 0x01 and DLE = 0x16

2. Bit stuffing: Start and end sequence: 01111110

   Bit stuff after every continuous five 1's.

Write a program to encode and decode byte stuffing and bit stuffing.

The program should take packet data as input in hex form, perform the byte and bit stuffing and display the total frame content. Then also perform decoding of the same and display and compare with original data.

Calculate the overhead bits according to byte stuffing and bit stuffing for the given input.

Upload the the screen shots and observation along with the source code.

Evaluation:

Program logic and implementation: 5 marks

Results and observation: 3 marks

Overhead calculation and comparison : 2 marks