



MALLA REDDY UNIVERSITY

School of Engineering
Department of Computer Science & Engineering

Branch: B.Tech, CSE

Subject: Computer Networks

Year: II-I, A.Y 2023-24

Subject Code: MR22-1CS0145

Assignment-2

UNIT-2 DATA LINK LAYER

1. a. Elaborate the design issues of data link layer and services provided to network layer.
b. What is framing? Explain different framing methods?
2. a. What are the different types of error detection methods? Explain the CRC error detection technique using generator polynomial $X^4 + X^3 + 1$ and data 11100011.
b. Explain about Hamming code.
3. a. What is the need of Flow control? Explain the common approaches for flow control in data link layer.
b. Explain in detail about the sliding window protocol using Go-Back-N and Selective Repeat.
4. Explain the following
 - a. Byte/Character stuffing
 - b. Bit stuffing
5. a. How CSMA/CA differs from CSMA/CD. Explain in brief?
b. Discuss briefly about collision free protocols.