Chapter 3

3.1 Services Provided to the Network Layer, Framing (Byte count Flag bytes with byte stuffing, Flag bits with bit stuffing, Physical layer coding violations), Error control, Flow control.

3.2 Error-Correcting Codes: (Hamming codes, Binary convolutional codes, Reed-Solomon codes, Low-Density Parity Check codes), Error-Detecting Codes: (Parity, Checksums, Cyclic Redundancy Checks)

3.3 Three simplex link-layer protocols: (Utopia: No Flow Control or Error Correction, Adding Flow Control: Stop-and-Wait, Adding Error Correction: Sequence Numbers and ARQ).

3.4 Piggybacking, three bidirectional sliding window protocols: (One-bit sliding window, go-back-n, selective repeat)

3.5 Packet over SONET, Packet over SONET