Chapter 1 Topics:

* What is Data & Data Communications
* Types of Network Connection Layouts
* OSI & TCP/IP Model
* Network Devices (hubs, switches, routers ect…)
* What is Convergence
* Benefits of a Micro-to-local area network

Chapter 2 Topics:

* What is Data, Signal, & Noise
* Digital Encoding Schemes
* Types of key shifting
* Amps, Wattts, Hz, & Volts
* What is a Codec
* Data to Signal Conversion Types

Chapter 3 Topics:

* Types of Conducted Media (fiber, twisted pair ect)
* Wireless Media
* Difference Between Shielded and Unshielded

Chapter 4 Topics:

* What is an Interface Standard, and four components of the interface
* Difference between Synchronous and Asynchronous
* Types of connections (ie. Point to Point)
* What is interfacing
* Advantages and Disadvantages of an asynchronous connection

Chapter 5 Topics:

* What is Compression, different types of
* What is Multiplexing, types
* T1 & SONET
* Different between a Multiplexor and a Demultiplexor?

Chapter 6 Topics:

* Noise and the different types
* Sliding Window, ACK, NAK
* Parity Checks
* What is Hamming
* Error-Prevention Techniques

Chapter 7 Topics:

* Advantages and Disadvantages of a LAN
* What is Link Aggregations
* Difference between a Hub and a Switch
* Network Topologies
* How do the different Topologies work

This is not an exhaustive 100% list but if you know this you should be do fine.

If you have a question about a note or slide email me. lmchughi@iit.edu