

## DATA COMMUNICATION AND NETWORK - I:

### UNIT - I :

Data Communication

Data Transmission- Concept and Terminology, Analog & Digital Data Transmission, Transmission Impairment, Transmission Media.

Data Encoding- Digital Data, Analog Data, Digital Signal, Analog Signal.

### UNIT - II :

Digital Data Communication: Asynchronous and Synchronous transmission, Error detection technique, Interfacing.

Data Link Control: Line configurations, Flow control, Error control, Data link control protocols. Multiplexing-Frequency division multiplexing, Synchronous Time Division Multiplexing.

### UNIT - III :

Circuit Switching: Communication Networks, Circuit switching, Single Node network, Digital switching concept, Control Signaling.

### UNIT - IV :

Packet Switching: Packet switching principles, Virtual circuits and diagrams, Routing, Traffic control, X.25. LAN & MAN- LAN,MAN technology, Bus, Tree, Star and Hybrid Topologies, Optical fiber Bus, Ring Topology, Medium Access Control Protocols, LAN/MAN standards.