Computer communications is the process of sharing data, programs, and information between two or more computers.

1. Communication Systems
   Connectivity
   - Linking people and resources
   - Wireless revolution
   Basic Elements
   - Sending and receiving devices, Connection devices, Data transmission specifications, Communication channels
2. Types of Connections
   Physical Connections
   - Twisted pair cables, Coaxial cables, Fiber-optic cables
   Wireless Connections
   - Bluetooth, Wi-Fi, Microwave, WiMax, Cellular, Satellite, Infrared, GPS.
3. Connection Devices
   Modems
   - Modulation and demodulation
   - Types: DSL, cable, wireless
5. Connection Services
   For Corporations
   - Leased lines, Optical carrier lines
   For Individuals
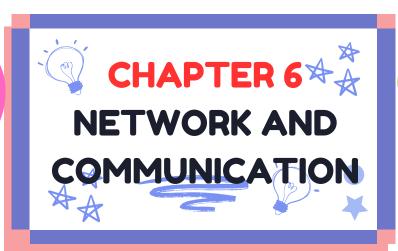   - DSL, Cable, Satellite, Cellular services, Fiber optic service
6. Data Transmission Factors
   Bandwidth
   - Voiceband, Medium band
   - Broadband
   - Baseband
   Protocols
   - HTTPS
   - TCP/IP

CHAPTER 6
NETWORK AND COMMUNICATION

A communication system that connects two or more computers so they can exchange information and share resources

1. Term In Network
   - Nodes
   - Clients and servers
   - Routers and switches
2. Network Types
   - LANs
   - WANs
   - PANs
3. Network Architectures
   - Topologies: bus, ring, star, tree, mesh
   - Strategies: client/server, peer-to-peer

- Network Administrator
  - Responsibilities
  - Required qualifications
  - Salary range

- 5G offers faster speeds, lower latency, and improved flexibility in wireless services, helping organizations mobilize workforces and support new applications.
- Wi-Fi 6 requires new standards for computers and mobile phones.
- ML makes predictions based on network data, while AI takes intelligent actions based on those predictions, leading to self-operating networks.
- AR and VR enhance applications and customer experiences, mainly used on smartphones and tablets, such as virtual presentations of furniture.
- Cloud computing allows faster transition to remote work, helps organize remote workplaces efficiently, and contributes to business continuity during crises.
- DevOps improves the relationship between network service designers and engineers, making operational changes to services more efficient.
- Digital transformation enables the adoption of digital technology to transform services or businesses, replacing manual processes with digital ones.
- IoT connects the unconnected, allowing devices and people to communicate and connect with each other.
- Data security manages network access and stops various threats from entering or spreading within the network.