

Sr. No.	Topics
1.	Introduction to Wireless Networks. IEEE Standards for Wireless Networks. Wireless Networks Applications. Types of Wireless Networks. Benefits of Wireless Networks.
2.	Wireless System Architecture: Wireless System Components, Network Architecture. Information Signals. Radio Frequency and Light Signal Fundamentals: Wireless Transceivers, understanding RF Signals, Working of Light Signals, Modulation: Sending Data packets in the Air.
3.	Types of Wireless Networks: WPAN, WLAN, WMAN Wireless PAN: Components: User Devices, Radio NIC, USB Adapters, Wireless Routers, Bluetooth Dongles etc. Wireless PAN Systems: SOHO Equipments, Printing, Accessing Internet, Accessing PDA's, Mobile Phones Wireless PAN Technologies: IEEE 802.15. Bluetooth Version 1 and Version 2.
4.	Wireless LAN: Meaning, Components: User Devices, Radio NIC's, Access Points, Routers, Repeaters, And Antennae. SOHO Applications: Internet Access, Printing, Remote Accessing. Public Wireless LAN's, and AdHoc Wireless LAN's
5.	Wireless MAN: Meaning and Components: Bridges, Bridges Vs. Access Points, Ethernet to Wireless Bridges, Workgroup Bridges, Directional Antennae's, Semi-Directional, Polarization.
6.	Wireless MAN Systems: Point to Point Systems, Point to Multi Point, Packet Radio Systems. Wireless MAN Technologies: IEEE 802.11 and Wi-Fi and also purpose of IEEE 802.16 Standard
7.	Wireless WAN: WAN User Devices, Base Stations, Antennae. Wireless WAN Systems: Cellular-Based Wireless WANs, First-Generation Cellular, Second-Generation Cellular, Third-Generation Cellular, SMS Application.
8.	Space-Based Wireless WANs: Satellites, Meteor Burst Communications
9.	Wireless Networks Security: Security Threats, Traffic Monitoring, Unauthorized Access, Middle Attacks, DoS Attack (Denial of Service). Protective Actions: WEP, WEP issues, WPA, VPN.
10.	Authentication. 802.11 Authentication Vulnerabilities, MAC Filters, Authentication Using Public Key Cryptography, 802.1x, Security Policies.