

Fundamentals of Wireless Communication

Unit I

Classification and types of Wireless telephones. Introduction to Cordless, Fixed Wireless(WLL), Wireless with limited mobility(WLL-M) and (Fully)Mobile Wireless phones. Introduction to various generations of mobile phone technologies and future trends.

Unit II

Wireline vs. Wireless portion of mobile communication networks. Mobile-Originated vs. Mobile-Terminated calls. Mobile-Phone numbers vs. Fixed-Phone numbers.

Unit III

Concept of cells, sectorization, coverage area, frequency reuse. Wireless Transmission concepts. types of antennas; concepts of signal propagation, blocking, reflection, scattering & multipath propagation.

Computer Graphics Fundamentals

Unit I

Introduction to Computer Graphics. Applications of Computer Graphics. Graphic Display Devices_ Raster, Refresh, Random. Display Buffer, Concept of Double Buffering and Segmentation of Display Buffer. Use of Lookup tables.

Unit II

2-D Graphics. Cartesian and Homogeneous Coordinate Systems. Line drawing algorithms (Bressenham's and DDA). Circle and Ellipse Drawing Algorithms. 2-Dimensional Transformations. Concepts of Window & Viewport,

Unit III

Clipping, Line Clipping Algorithms (Cohen-Sutherland Algorithm), 3-D Graphics, Projections: perspective and parallel projection transformations.

Basics of Computer Networks

Unit I

Goals and applications of networks, LAN, MAN & WAN architectures, Overview of existing networks. Need for Network Models, OSI Reference Model , TCP/IP Model and their comparison

Unit II

Internetworking concept and architectural model. Connection-oriented and connection-less approaches. Classful IP addresses. Subnetting , Transport Layer: UDP and TCP concepts. Network Security: Firewalls, Encryption