MScIT-04 Fundamentals of Networking and Web Technology

UNIT 1 : Basics of Computer Network

Computer Network: Definition, Goals; Broadcast and Point-To-Point Networks; Connectionless and Connection-Oriented Services; Network Devices; Network Topologies; Types of Network: LAN, MAN, WAN; Server Based LANs and Peer-to-Peer LANs; Transmission Types; Modes of Communication; Switching Techniques

UNIT 2 : Network Models

Design Issues of the Layer, Protocol Hierarchy, ISO-OSI Reference Model: Functions of each Layer; Various Terminology used in Computer Network; Connection-Oriented and Connectionless Services, Internet (TCP/IP) Reference Model, Comparison of ISO-OSI and TCP/IP Model

UNIT 3 : Transmission Media

Transmission Medium, Guided Media: Coaxial Cable, Twisted Pair, Fiber Optics Cable; Unguided Media: Radio Waves, Infrared, Micro-wave, Satellite

UNIT 4 : Internet Basics

Internet: Architecture, Accessing, Internet Service Providers (ISP), Organization of Internet Protocol suite, IP Address, DNS, URL; World Wide Web (WWW): Web Page, Web Servers, Web Browsers, Cookies

UNIT 5 : Static Web Page Design

Basics of HTML; Document Structure tags; Formatting tags; List tags; Hyperlink and Image tags; Table tags; Frame tags; Form tags.

UNIT 6 : HTML Tags and XML

HTML Form; Additional Advanced HTML Tags; Introduction of XML.

UNIT 7 : JavaScript

Client Side Programming; Basic Programming Concepts; Control Structures in JavaScript; Array; Functions;, Working With Form Object; Built-in Objects in JavaScript, User Defined Objects in JavaScript