

Course No. 504

INTERNET AND WORLD WIDE WEB (IWWW XX)

Hours: 40

Marks: 80

Objective: The objective of this paper is to familiarize the students with the basic concepts and ground rules of internet and the various services it offers, including designing a website, security of Data and Information on the internet, and how to access information from depositories in the World Wide Web. Emphasis has been given in developing the various concepts of internet.

Course Contents:

- Unit I:** The Mechanism of the Internet; Distributed computing; Client-server computing; Internet Protocol; Protocol Stack; Open system Interconnection Reference Model (OSIRM) based on the International Organization for Standardization (ISO) (Application layer, presentation layer, session layer; transport layer, network layer, data link layer, and physical layer); TCP/IP protocol suite model; Mechanism of transmitting the message across the network and function of each layer, Processing of data at the destination; Mechanism to log onto the network; Mechanism of sending and receiving email. 20 : 10 hrs
- Unit II:** Internet enabled Services: Electronic mail (E-mail); Usenet & news group; File transfer protocol (FTP); Telnet; Finger; Internet and chat (IRC); Frequently asked questions (FAQ); The World Wide Web Consortium (W3C) – origin and evolution; Standardizing the web; W3C members; W3C recommendations; Browsing and searching; Browsing and Information retrieval; Exploring the world Wide web; Architecture of World Wide web; Hyperlink; Hypertext Markup Language (HTML); Hypertext transfer Protocol (HTTP); Address-URL. 20: 10 hrs
- Unit III:** Designing Web Site/Web Page: WWW operations, Web standards, HTML-concept and version; Naming scheme for HTML documents; HTML editor, Explanation of the structure of the homepage; Elements in HTML documents; XHTML, CSS, Extensible Style sheet language (XSL); Tips for designing web pages. 20 : 10 hrs
- Unit IV:** Security of Data/Information: Security; Network security; PINA factor-privacy; integrity, non-repudiation, authentication; SSL; Encryption; Digital signature; digital certificate; Server security; Firewall; Password; Biometrics; Payment security; Virus Protection; Hacking. 20 : 10 hrs

Text and Reference Books:

1. Agarwalla Kamlesh .N. and Agarwalla Deeksha: Bridge to the Online Storefront; Macmillan India New Delhi.
2. Agarwalla Kamlesh .N. and Agarwalla Deeksha: Fatal Click: what to do when viruses seize your computer; Macmillan India, New Delhi.
3. Philips Lee Anne: practical HTML 4; Prentice Hall New Delhi.
4. Douglas E. Comer: The Internet Book; Prentice Hall New Delhi.
5. Minoli Daniel, Minoli Emma: Web Commerce Technology Handbook; Tata McGraw Hill New Delhi.
6. Minoli Daniel: Internet & Internet Engineering; tata McGraw Hill New Delhi.
7. Deital Harvey M. and Deital Paul J. and Neito T.R.: Complete Internet and World Wide web Programming Training Course; Prentice Hall New Delhi.