

Course Code: PGDCA 105, 05/MSCCS-105, 05/MCA-105

Course Name: Computer Networking and Internet

Unit 1: Computer Network Fundamentals

Introduction definition applications transmission media: magnetic media twisted pair coaxial cable fibre optics networking Essentials repeaters hub switches routers Gateway NIC

Unit 2: Computer Network

Introduction, types of networks: LAN, man, Wan, wireless networks, Network topologies bus Ring Tree star mesh, reference models: OSI and TCP/IP

Unit 3: Computer Network

Protocols: TCP, IP, UDP, IPv4, IPv6, Circuit Switching, Packet Switching, Virtual LANS

Unit 4: Internet

Introduction, Internet, intranet, Internet architecture: the open system interconnection Model, Internet Protocols, Encapsulation, Routing, Domains and domain name system.

Unit 5: Internet features

Introduction, Internet services: email, how Internet email works, email transfer protocols, how to send email, spamming, privacy problems regarding email.

Unit 6: Internet connectivity

Introduction, Internet browsers: Lynx, Netscape navigator, Internet Explorer, Opera, Mozilla, Internet connections: dial up connection, leased line, ISDN, cable modem, asymmetric digital subscriber lines, voicemail, video conferencing, Internet privacy: cookies, Internet security: antivirus, firewall: packet filters, higher layer inspection firewalls, proxy servers.

Unit 7: World Wide Web

Introduction to www, elements of web, web browser, using a browser, viewing page with a browsers, Using a browser for mails, security and privacy issues (Executable applets and scripts, blocking system), Tips For Effective Browsing/Downloading/Copying Files From The Web.

Unit 8: Applications of Internet

Finding and installing players, plugins and ActiveX controls, dealing with web pages that contain ActiveX, Java, JavaScript, Playing streaming audio and video, Playing MP3 music, Using Search Engines, making use of web resources.

Unit 9: E-commerce

Introduction to Electronic Commerce, Scope Application, Feasibility And Various Constraints, Introduction To Cyber Law, Ethics And Intellectual Property Rights.

Unit 10: Creating and Maintaining Websites

Development Tools, Planning, Element Of A Web Page And Creation Of Web Pages.

Unit 11: Formatting Features

Introduction to website, development of a personal website, website publishing, maintenance of site, planning and process development of web, components of web project, formatting web pages using stylesheet.

Unit 12: Creating and Maintaining Websites

Introduction, Anti Aliasing, Image Slicing, Adding Sound To Websites, Adding Sound Into A Web Pages, Optimising Web Pages, File Transfer Protocol, Analysing Web Traffic, Creating Traffic To Your Website.

Unit 13: JavaScript

Introduction, how to put a JavaScript code into a HTML page, JavaScript variables, conditional statements, JavaScript events, JavaScript catching errors, introduction to JavaScript objects, Creating your own objects, HTML DOM objects.

Unit 14: Active Server Pages (ASP)

Introduction, my first ASP page, server side scripting, output, variables and forms, operators in ASP, control structures, subroutines, session application and cookies, the dictionary object, Global.asa.

Unit 15: Active Server Pages (ASP)

Arrays, creating a table from data in a string, sorting, math functions, open read and create files, file system objects, create and delete folders, get list of files, get list of folders, working with databases.