Certificate Course on Computer Application

Paper-I(Section I): Operating System Fundamentals Networking and Basics of Internet

Unit – I

OperatingSystem Fundamentals, Networking and Basics of Internet Fundamentals of OS, Services,Components

File System- File storage,access methods free space management.

CPU scheduling- Multitasking,Programming, Time Sharing, buffering,spooling,memory management.

Unit- II

Distributed Systems-Basics of parallel,networked and distributed systems.

Security- Need and strategies for security in standalone and networked systems. Concept of ACL and capabilities,Password and encryption schemes.

Unit-III

Networking: Introduction LAN,WAN,MAN topologies

Internet Basics- History and introduction,accessing net,protocols TCP/IP,SLIP,PPP. Components of URL,FTP,HTTP,Browser basics,Search Engines,Advance search,Email,Email Etiquettes,spam and emoticons.

Practical: Basic commands of Linux OS and Windows NT. Students should be able to setup internet and mail accounts independently. Send or receive mails, configure multiple accounts, block senders,manage inboxes and set up rules for incoming mails,download,upload files, use web mail.

Paper- I (Section II) HTML and basics of DHTML/XML/FLASH, Front Page 2000

Unit - IV

Evolution of HTML,Basic HTML,Structure of an HTML,Document,Inserting links, images, horizontal rules,comments. Formatting text, heading tags,colors,fonts and sizes,simple tables and forms,frames

Unit – V

Issues for web design,cross browser issues,cross platform issues, aesthetics and structure vs style.

Unit – VI

Introduction to DHTML,XML,XML as the likely platform for future development in the net.

Practical:

Students must create web pages. The pages must contain all basic elements of a web page including forms and certain basic interactivity and animation.

Paper – II (Section I) Programming Language principles

Unit –I

Design of Pseudo code, implementation and phenomenology of programming languages. Emphasis on efficiency, structural organization, data structures,name structures,syntactic structures,generality and hierarchy, control structures

Unit – II

Syntax and Elegance,BN,Rail road diagram, implementation of block structured languages. Procedure call and return.

Unit – III

Modularity and data abstraction,procedures and concurrency,list processing,functional programming, recursion,object oriented programming,principles of language design

Paper – II(Section II) C Language

Unit –IV

Introduction to programming, programming process,problem definition,program design,coding,compilation and execution,testing and debugging, documentation.C primitives.

Unit-V

Sequential structures, selective structures,repetitive structures.

Unit –VI

Functions, C preprocessors,arrays,pointers

Practicals(C Program)