

nologies (fast Ethernet & Gigabit Ethernet), How LAN works, Brief survey of active and passive LAN components.

Internet: Network, Client and Servers, Host & Terminals, TCP/IP, World Wide Web, Hypertext, Uniform Resource Locator, Web Browsers, IP Address, Domain Name, Internet Services Providers, Internet Security, Internet Requirements, Web Search Engine, Net Surfing, Internet Services, Case Study, Intranet.

Cyber Laws: Introduction to Cyber Laws, Cyber crime, Cyber contract, Cyber privacy, IT Act

Recommended Books:

1. P .K. Sinha ,Fundamentals of Computers, BPB Publications
1. V. Rajaraman, Fundamentals of Computers, 3rd Edition , PHI Publications

BCA-102: PC Software Packages

(This paper must be taught in the Lab using PC software)

UNIT-I

DOS: Introduction, history & versions of DOS, DOS basics- Physical structure of disk, drive name, FAT, file & directory structure and naming rules, booting process, DOS system files, DOS commands- internal & external,

UNIT-II

Windows Operating System : Windows concepts, Features, Windows Structure, Desktop, Taskbar, Start Menu, My Computer, Recycle Bin, Windows Accessories- Calculator, Notepad, Paint, Wordpad, Character Map, Windows Explorer, Entertainment, Managing Hardware & Software- Installation of Hardware & Software, Using Scanner, System Tools, Communication, Sharing Information between programs.

UNIT-III

Word Processing; MS-Word: Features, Creating, Saving and Opening Documents in Word, Interface, Toolbars, Ruler, Menus, Keyboard Shortcut, Editing, Previewing, Printing, & Formatting a Document, Advanced Features of MS Word, Find & Replace, Using Thesaurus, Using Auto- Multiple Functions, Mail Merge, Handling Graphics, Tables & Charts, Converting a word document into various formats like- Text,

Rich Text format, Word perfect, HTML etc.

UNIT-IV

Worksheet- MS-Excel: Worksheet basics, creating worksheet, entering into worksheet, heading information, data, text, dates, alphanumeric values, saving & quitting worksheet, Opening and moving around in an existing worksheet, Toolbars and Menus, Keyboard shortcuts, Working with single and multiple workbook, working with formulae & cell referencing, Auto sum, Coping formulae, Absolute & relative addressing, Worksheet with ranges, formatting of worksheet, Previewing & Printing worksheet, Graphs and charts, Database, Creating and Using macros, Multiple worksheets- concepts, creating and using.

UNIT-V

Introduction to Power Point: Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Excel Charts, Word Art, Layering art Objects, Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect.

Other packages: DTP software: Brief survey of MS Publisher, Pagemaker, Coreldraw.

Adobe Photoshop

Recommended Books:

1. PC Software for Windows – R.K. Taxali
2. Unix Concepts and Applications – Sumitabha Das

BCA 103: Problem Solving through C Programming

UNIT-I

Algorithm and algorithm development:

Definition and properties of algorithm, flow chart symbols, conversion of flow chart to language, example of simple algorithms, Introduction to program design, errors – syntax error, runtime error, logic error.

UNIT-II

Basics of C – Language:

History, Constants – Integer, Real, Character; Variables and Keywords; Data types and size, constants, arrays, pointers, Operators – arithmetic, relational, logical, increment and decrement, bitwise and assignment, Hierarchy of Operators and Operations, Associativity of Operators, creation and evaluation of expressions.

UNIT-III

Control Structure:

Decision Structure: - Simple if, if – else, if – else – if, nested if, switch case; Loop Control Structure:- while , do while and for; Use of break, goto and continue;

