

**DIPLOMA PROGRAMME**  
**DIPLOMA IN COMPUTER APPLICATION (DCA)**  
**CODE – DCA01**  
**PC PACKAGES (WORD, EXCEL, POWER-POINT, ACCESS)**

**Unit I (Windows, MS-Word)**

Introduction to Microsoft windows operating system. Introduction to desktop components like icon, taskbar etc. using start menu, my computer, viewing your hard disk, windows explorer, network neighbourhood. Using mouse and keyboard. Using recycle bin sending file, removing file, emptying recycle bin. Removing file Permanently without sending recycle bin. Introduction to MS-Office Suit word, power point, excel, access. The common element that integrate the suit, menu bar, toolbars, office assistance, help.

Introduction to MS-Word features, creation, saving and opening document. Introduction to word processing, interface, toolbars, ruler menus, keyboard shortcut keys. Opening multiple document, selecting text, editing, inserting, deleting, moving text, previewing document, printing document, formatting document, paragraph formats, aligning, checking spelling and grammar, find and replace. Autocorrect, auto complete, word count, hyphenation, mail merge, templates, tables and charts. Converting a word document into various format like text, rich text format, html etc.

**Unit II (MS- Excel)**

Introduction to worksheet basics, creating, entering data in to worksheet, data, text, dates, alphanumeric, values. Saving, opening worksheet. Working with single and multiple workbook- coping, renaming, adding deleting and moving between workbook. Working with formulas, range, formatting, colours, border, previewing and printing worksheet. Page setting, print title, adjusting margin, page brake, header and footer. Graphics and charts using wizard, types for charts. Database creation, sorting, searching and filtering creating and using macros.

**Unit III (MS-Power-Point)**

Introduction to Power point, features and versions. Creating presentation using Slide master and templates in various colour scheme, working with different views and menus of power point, working with slides- make new slide, move, copy, delete, duplicate, layout slide, formatting text, bullets, spelling checking. printing presentation-print slide, notes, handbook and out line.

**Unit IV (MS-Access)**

Introduction to ms access, creating, Opening, renaming, deletion data base, working with tables, query, form, reports, macros, modules. Designing query using wizard and with out wizard. Query design screen, OBE grid, field list, building query, adding and removing a table in a query. Designing form using wizard, views, switching views. Toolbar and controls, properties, navigation data in a form. Adding, deleting, filtering records. Designing a report using wizard, report header footer, page header footer, sorting and grouping, previewing report.

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**CODE – DCA02**  
**FUNDAMENTALS OF COMPUTER AND INFORMATION TECHNOLOGY**

**Unit – I (Introduction to Computer and Information Technology)**

History of development of computer, Computer system concept, Characteristics, Capabilities and limitation, Types of Computers - Analog, Digital, Hybrid, General, Special Purpose, Micro Mini, Mainframe, Super. Generations of Computers. Personal Computer (PCs) IBM PCs, characteristics, PC/PCXT/PCAT configurations, Pentium and Newer PCs specifications and main characteristics.

Types of PC/Es-Desktop, Laptop, Notebook, Palmtop, work stations etc their characteristics. Computer Organization and Working Basic components of, computer - control unit, ALU Input/output function and characteristics, memory - RAM, ROM, EPROM and other types of memory.

**Unit - II (Input/output Devices, Storage Devices)**

Keyboard, Mouse, Trackball, Joystick, Digitizing table, Scanners, Digital Camera, MICR, OCR, OMR, Bar-code Reader, Voice Recognition Light pen, Touch Screen. Output Devices : Monitors - characteristics and types of monitor - Digital Analog size, Resolution, Refresh Rate, Interlaced/Non Interlaced, Dot Pitch, Video Standard - VGA, SVGA, XGA etc. Printers- Daisy Wheel, Dot Matrix, Laser, Line Printer. Plotter Sound Card and Speakers.

Storage fundamentals-Primary Vs Secondary. Data Storage and Retrieval methods-Sequential, Direct and Index Sequential. Various Storage Devices - Magnetic Tape, magnetic Disks, Cartridge Tape, Data Drives, Hard Disk Drives, Floppy (Winchester Disk), Disks, Optical Disks, C.D. VCD. CD-R, CD-RW, Zip Drive. Computer Virus, Virus working principals. Types of viruses. Virus detection and prevention Viruses on network

**Unit III (Computer Software)**

Computer Software, Need, Types of Software-System Software. Application Software. System Software-Operating System, Utility Programming languages, Assemblers, Compilers and Interpreter. Operating Systems- Function, Types- Batch, Single, Multi programming, Multiprocessing. Programming language- Machine, Assembly, High Level, 4GL their merits and demerits. Application Software Word- processing, Spreadsheet, Presentation Graphics, Data Base Management. Software, characteristics, Uses and examples and area of applications of each of them. Number System Data representation in computers- Binary, Octal, Hexa-Representation & their conversion. Coding system = ASCII, BDC, EBCDIC etc.

**Unit IV (Data Communication and Network)**

Data Communication and Networks Analog and Digital Signals Modulations - Amplitude Modulation (AM), Frequency Modulation (FM) Phase Modulation (PM) Communication Process Direction of Transmissions flow-Simplex, Half Duplex, Full Duplex. Communication Software Communication Protocols Communication Channels-Twisted, Coaxial, Fibre, Optical, Serial and Parallel Communication

Modem-Working and characteristics Types of Connections- Dial-up, Leased Lines, ISDN Types of Network - LAN, WAN, MAN, etc Topologies of LAN-Ring, Bus, Star, Mesh and Tree topologies. Components of LAN-Media, NIC, NOs, Bridges, HUB, Routers, Repeater and Gateways. Use of Communication in daily life.

**DIPLOMA PROGRAMME**  
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**CODE – DCA03**  
**GUI PROGRAMMING VISUAL BASIC**

**Unit – I (Integrated to Development Environment of Visual basics)**

Integrated Development Environment of VB, User Interface designing, Basics of Event driven Programming.

From - Designing, Showing & Hiding.

**Unit II (Data Type & Control Statements)**

Data Types, Variables & Constant, Arrays, Dynamic Arrays, Array as Function, Collections, Procedures, Arguments passing, Functions Return Values. Control Flow Statements: If - then, if - then - else, select case, looping statement: Do - Loop, For - next, While - W end, Nested Control Structure, Exit Stmt.

**Unit III (Building Blocks of Visual Basic & Components)**

Basic Active X Control & Their use - Text box, combo box, List Box, Scroll bar, Slider & File Controls.

Advance Active X Control- Common Dialog Controls, color, font, file open, file save, print, help, tree view & list view controls.

Graphics controls, image handling in VB, Coordinate System, Graphics Methods - Text Drawing, Lines & Shape, Filling Shapes, Grid methods. Menu editor : Pull - down and pop - up menus. Multiple Document interface - parent & child Forms & Methods. Error handling: Types of Errors, Error handling methods and functions.

**Unit IV (Database Programming)**

Database Programming with VB - data- Control - Methods, Properties, Visual Data Manager, connectivity With database. Data Bound Controls.

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**CODE – DCA04**

**APPLICATION PROGRAMMING IN FOXPRO (2.5/2.6)**

**Unit - I FOXPRO - THE RDBMS FOR PC**

FoxPro-versions, features, requirement of Hardware and software. FoxPro-Menu system, working with FoxPro Creating Database File Some common Operating on data CREATE, LIST , APPEND,CLOSE, QUIT . Data types, .Viewing and Editing Data, Data Displaying and Monitoring Commands - DISPLAY , LIST , LOCATE, EDIT, CHANGE, BROWSE, REPLACE, DELETE, RECALL, PACK (All Commands With Various Options) Modify structure, Memo Field and File Utilities - DISPLAY DIRECTORY , COPY , DELETE, RENAME.

**Unit – II SORTING & INDEXING**

Sorting and Indexing of Database Files Sorting & disadvantage of Sort. Indexing Vs Sorting. Single & Multiple Key Indexing, FIND, SEEK, Rushmore Technology . Printing Reports and Labels FoxPro Reports- its creation, features & Utilities, Preview, Printing Custom Reports, Grouping & Sub Grouping, FoxPro Label - Designing & Printing.

Memory Variables, Date & Time Function and Keyboard Macros: Memory variables- creation and uses, simple V/S Array, Saving and Restoring Memory Variables. ?/??/??? Commands, Time & Date Function and Commands, Date Arithmetic. Converting Defining Function , Keys, Keyboard Macros - Creating and Using Arithmetic Operations, Mathematical Function, Mathematical Commands, Statistical Function.

**Unit III PROGRAMMING WITH FOXPRO**

Concepts of FoxPro commands file, Modify commands. Conditioning, Branching and looping within program files with Do - while enddo, if - Endif, Scan - Endscan, For - Endfor , Dohow-Endhow, Text - End text, Executing Commands from other commands files, macro, substitution.

**Error conditions and program Debugging Aids** Commands Error Messages, Debugging Techniques and commands

**Unit - IV MULTIPLE DATA FILES**

Concepts Of Multiple Database Files - Using Multiple Database File , Relationing the database - SET RELATION, UPDATE, APPEND FROM, COPY TO, JOIN, RELATION Query by Example and SQL, Custom Screens & User Define Functions & Other Tools. Create Custom Screen With @ \_GET , @EDIT , @SA Y\_GET\_READ, Creating Box & Lines, User Define Function, Custom Screen designing and their Use, FoxDoc For documentation.

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**CODE – DCA05**

**DESKTOP PUBLISHING (PageMaker 6.5 & POWER POINT)**

**Unit – I (DTP)**

**Introduction to DTP:** Definition, Characteristics, Use of DTP in publication & News paper Printing, Various DTP Software, Bitscream & Vector Graphics, Printers- Dot Matrix, Inkjet and laser , Introduction to offset printing Technology, Topography - History , Elements, Selection Of Fonts, Points, use of blank spaces and dashes, white Spaces, Various Breaks, Good Designing and Easy Readability. Different measurements used in DTP printing.

**Unit – II (Adobe PageMaker)**

Introduction to Adobe Page Maker , why PageMaker Popular in Publication, Toolbox, Styles, Menus, Templates, Different Page Layouts, Page Orientations & Page Setup, Master Page, Page Numbering, Importing Text, Auto Flow, Text Frames & Text boxes, Story Editor & Layout View , Spell Check & Replace, Attribute Settings, Alignments, Grids and Guides etc., working with text and graphics, tab setting, columns & gutters.

**Unit - III**

Import & Export of files, placing Texts & Graphics, Styles & Palettes, Picture Editing, Using Colours, Bullets, Masking, Fonts : Post script Fonts, True Type Fonts, Bit Stream & Vector Fonts., Column Balancing Breaks., Windows & Orphan Lines, Reverse Text, Text Wrapping, Revert Command, Drop Caps, Printing, Options, Control Palette.

Clips & Image Files, Key Board Controls, OLE & Embedding, Linking Plugging, Mathematic Equation, Table Editor , Printing Options, Filters, Layers, PDF Files, Frame Option, Headers & Footers.

**UNIT- IV Presentation Graphics**

MS Power Point, Features and Various Versions, Creating Presentation using Slide Master and Template in various colour schemes., working with different views and menus of power point., working with slides - make new slide, move copy , delete, duplicate layouting of slide, zoom in or out of Slide, Editing and Formatting text : Alignment, Editing, inserting, deleting, selecting, formatting, of text find and replace text., Bullets, Footer , Paragraph Formatting, Spell Checking, Printing Presentation - Print Slides, notes handouts and outlines.,

inserting Object - Drawing and Inserting Object Using Clip arts, Pictures and Charts. Slide Sorter Transition effects and other animation effects. Presenting the show making stand alone presentation, pack and go wizards.

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**CODE – DCA06**  
**INTERNET AND WEB PAGE DESIGNING**

**Unit – I (Internet)**

Evolution, Protocols, Interface Concepts, Internet V/S Intranet, Internet Growth of Internet, ISP , Connectivity-dial - up, leased line, VSAT etc., URLs, Domain names, portals, application.

**E – Mail** Concepts, POP and WEB Based E - mail, merits, address, Basics of sending & Receiving, E - mail Protocols, Mailing List, Free E - mail Services.

**Unit – II (File transfer protocols, Telnet & Chatting)**

Data Transmission Protocols, Client/ Server architecture & its Characteristics, FTP & its Usages, Telnet Concept, Remote Logging, Protocols, Terminal Emulation ,Message Board, Internet Chatting Voice Chat, Text Chat etc.

**Unit – III (World Wide Web [WWW] and Web Publishing)**

History , Working, Web browsers , Its Function, concepts of search engines, Searching the Web, HTTP , URLs, Web Servers, Web Protocols.

Concepts Domain name Registration, Space on Host Server for Web site, HTML, Design tools, HTML editors, Image editors, Issues in web site creations & Maintenance, FTP software for upload web site.

**Unit – IV (HTML, E-Commerce & Java Script)**

Concepts of Hypertext, Versions of HTML, Elements of HTML syntax Head & Body Sections, Building HTML documents, Inserting texts, Image, Hyperlinks, Backgrounds and Colour controls, Different HTML tags, Table layout and presentation, use of font size & Attributes, List types and its tags. Use of frames and forms in web pages.

An Introduction, concepts, technology in e-commerce, internet & e-business, advantage of e-commerce, applications, feasibility & various constraints.

Java Script: introduction and version of Java script & java. Syntax, naming rules, variable scope, expression, conditional expression, loop expression, for statement, while statement.