

AKS University, Satna
Diploma in Computer Application (DCA)
Semester : I

Sr.no	Subject Code	Subject Name	L	T	P	Credit
1	92CA101	Office Automation Tools	4			4
2	92CA102	Fundamentals of Computers	4			4
3	92CA103	MS Access	4			4
4	92CA151	PC Packages (Lab)			3	2
5	92CA152	MS Access (Lab)			3	2

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Semester : II

Sr.no	Subject Code	Subject Name	L	T	P	Credit
1	92CA201	Trends of IT and Technologies	4			4
2	92CA202	Web Page Designing	4			4
3	92CA203	Desk Top Publishing	4			4
4	92CA251	Web Page Designing (Lab)			3	2
5	92CA252	Desk Top Publishing (Lab)			3	2

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Fundamentals of Computers

UNIT-I

Brief History of Development of Computers ,Computer System Concept, Computer System Characteristics ,Capabilities and Limitations, Types of Computers-.,Personal Computer (PCs) - IBM PCs, Types of PCs- Desktop, Laptop, Notebook, Palmtop, etc. Basic Components of a Computer System - Control Unit, ALU, Input/ Output semiconductor Memory. Storage fundamentals - Primary Vs Secondary memory.

UNIT-II

Input Devices :Keyboard, Mouse, Joystick, Scanners, Digital Camera, MICR,OCR, OMR, , Light pen, Touch Screen.

Output Devices Monitors - Characteristics and types of monitor, Size, Resolution, Refresh Rate, Dot Pitch, Video Standard - VGA, SVGA, XGA etc. Printers - Daisy wheel, Dot Matrix, Inkjet, Laser. Plotter, Sound Card and Speakers.

UNIT-III

Various Storage Devices - Magnetic Disks, Hard Disk Drives, Floppy, Disks, Optical Disks, Computer Software ,Need, Types of Software's - System software, Application software System Software - Operating System, compiler ,Assemblers, Interpreter .

UNIT-IV

Operating Systems –Functions ,Types- Batch, Single, Multiprogramming, Multiprocessing Programming languages- Machine, Assembly, High Level, 4GL, Application Software - Word-processing, Spreadsheet, Presentation Graphics, Data Base Management Software,

Number System, Number System of computers- Binary, Octal, Hexadecimal, their conversion. Coding System – ASCII, EBCDIC.

UNIT-V

Direction of Transmissions Flow-Simplex, Half Duplex Full Duplex, Types of Network - LAN, WAN, MAN etc.

Topologies of LAN - Ring, Bus, Star, Mesh and Tree topologies.

Computer Virus: Virus working principals, Types of viruses, Virus detection and Prevention Viruses on network.

TEXT & REFERENCE BOOKS :

1. *COMPUTERS TODAY BY S.K. BASANDRA, GALGOTIA PUBLICATIONS.*
2. *FUNDAMENTALS OF INFORMATION TECHNOLOGY BY ALEXIS LEON & MATHEWS LEON, VIKAS PUBLISHING HOUSE, NEW DELHI.*
3. *DOS QUICK REFERENCE BY RAJEEV MATHUR, GALGOTIA PUBLICATIONS.*

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Office Automation Tools

UNIT-I

MS Windows: Introduction to MS Windows; Features of Windows; Various versions of Windows & its use; Working with Windows; My Computer & Recycle bin ; Desktop, Icons and Windows Explorer; Screen description & working styles of Windows; Dialog Boxes & Toolbars; Working with Files & Folders; simple operations like copy, delete, moving of files and folders from one drive to another, Shortcuts & Auto starts; Accessories and Windows Settings using Control Panel- setting common devices using control panel, modem, printers, audio, network, fonts, creating users, internet settings, Start button & Program lists; Installing and Uninstalling new Hardware & Software program on your computer.

UNIT-II

Office Packages: Office activates and their software requirements, Word-processing, Spreadsheet, Presentation graphics, Database, introduction and comparison of various office suites like MS-Office, Lotus-Office, Star-Office, Open-Office etc.

MS Word Basics: Introduction to MS Office, Introduction to MS Word, Features & area of use. Working with MS Word, Menus & Commands, Toolbars & Buttons, Shortcut Menus, Wizards & Templates, Creating a New Document, Different Page Views and layouts, Applying various Text Enhancements, Working with -Styles, Text Attributes, Paragraph and Page Formatting, Text Editing using various features ; Bullets, Numbering, Auto formatting, Printing & various print options

UNIT-III

Advanced Features of MS-Word: Spell Check, Thesaurus, Find & Replace; Headers & Footers, Inserting - Page Numbers, Pictures, Files, Auto texts, Symbols etc., Working with Columns, Tabs & Indents, Creation & Working with Tables including conversion to and from text, Margins & Space management in Document, Adding References and Graphics, Mail Merge, Envelops & Mailing Labels.

Importing and exporting to and from various formats.

UNIT-IV

MS Excel: Introduction and area of use, Working with MS Excel, concepts of Workbook & Worksheets, Using Wizards, Various Data Types, Using different features with Data, Cell and Texts, Inserting, Removing & Resizing of Columns & Rows, Working with Data & Ranges, Different Views of Worksheets, Column Freezing, Labels, Hiding, Splitting etc., Using different features with Data and Text; Use of Formulas, Calculations & Functions, Cell Formatting including Borders & Shading, Working with Different Chart Types; Printing of Workbook & Worksheets with various options.

UNIT-V

MS PowerPoint: Introduction & area of use, Working with MS PowerPoint, Creating a New Presentation, Working with Presentation, Using Wizards; Slides & its different views, Inserting, Deleting and Copying of Slides; Working with Notes, Handouts, Columns & Lists, Adding Graphics, Sounds and Movies to a Slide; Working with PowerPoint Objects, Designing & Presentation of a Slide Show, Printing Presentations, Notes, Handouts with print options.

Outlook Express: Features and uses, Configuration and using Outlook Express for accessing e-mails in office.

TEXT & REFERENCE BOOKS:

1. *WINDOWS XP COMPLETE REFERENCE. BPB PUBLICATIONS*
2. *MS OFFICE XP COMPLETE BPB PUBLICATION*
3. *MS WINDOWS XP HOME EDITION COMPLETE, BPB PUBLICATION.*
4. *JOE HABRAKEN, MICROSOFT OFFICE 2000, 8 IN 1, BY, PRENTICE HALL OF INDIA*
5. *I.T .TOOLS AND APPLICATIONS, BY A. MANSOOR, PRAGYA PUBLICATIONS, MATURA*

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MS Access

UNIT-I

Introduction to database -What is a Database, Why use a Relational Database, concept of primary key relationship , Introduction to MS Access (Objects, Navigation).

UNIT-II

Create a Table in MS Access -Data Types, Field Properties, Fields: names, types, properties-- default values, format, caption, validation rules Data Entry, Add record, delete record and edit text, Sort, find/replace, filter/ select, rearrange columns, freeze columns. Edit a Tables- copy, delete, import, modify table structure, find, replace.

UNIT-III

Add a relationship, set a rule for Referential Integrity, change the join type, delete a relationship, save relationship Queries & Filter - difference between queries and filter, filter using multiple fields ,Create Query with one table, find record with select query, find duplicate record with query, find unmatched record with query, run query, save and change query.

UNIT-IV

Introduction to Forms Types of Basic Forms: Columnar, Tabular, Datasheet, Main/Subforms, add headers and footers, add fields to form, add text to form use label option button, check box, combo box, list box Forms Wizard, Create Template.

UNIT-V

Introduction to Reports , Types of Basic Reports: Single Column, Tabular Report Groups/Total, single table report, multi table report preview report print report, Creating Reports and Labels, Wizard.

TEXT & REFERENCE BOOKS:

1. *MS OFFICE XP COMPLETE* BPB PUBLICATION ISBN 8 1-7656-564-4
2. *MS ACCESS FAST & EASY* BY FAITHE WEMPEN PHI .

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Semester : II

Trends of IT and Technologies

UNIT-I

Introduction to Distributed system, Advantage and Disadvantage of Distributed System, Artificial Intelligence and Expert system- Concepts of AI & Expert Systems, Merits and Demerits of Expert system, Application of Expert system and AI.

UNIT-II

Introduction to Virtual Reality and multimedia: Introduction, Brief History of virtual reality, Present uses of virtual reality, various software of multimedia.

UNIT-III

E-Commerce: an Introduction, Concepts, Advantages and Disadvantages, Technology in E-Commerce, Benefits and impact of e-commerce, Electronic Payment Systems: Introduction, Types of Electronic Payment Systems.

UNIT-IV

CELLULAR TRANSMISSION: Radio Frequency Communications, Wireless Services Wireless & Mobile Computing, Cellular System Cell, Mobile Switching office, Hands off, Base Station, Frequency Reuse and Cluster.

UNIT-V

E-governance, e-democracy, Government efforts to encourage citizen participation Privacy and Security Issues, Information security management Digital Divide, Introduction of Cyber Crime, various site for e governance

TEXT & REFERENCE BOOKS:

1. *FUNDAMENTALS OF INFORMATION TECHNOLOGY BY ALEX LEON & MLEON, VIKAS PUBLICATIONS,*
2. *FRONTIERS OF ELECTRONIC COMMERCE, BY- KALAKOTA, RAVI; STONE, TOM; WHINSTON, ANDREW B, ADDISON WESLEY PUBLISHING CO, ISBN 8178080575*
3. *E-COMMERCE AN INDIAN PERSPECTIVE (SECOND EDITION) BY PT JOSEPH, S.J.PRENTICE-HALL OF INDIA*
4. *RECENT MAGAZINES OF COMPUTERS AND COMMUNICATION*

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Semester : II

Web Page Designing

UNIT-I

Applications of Internet, History of Internet, WWW, Various Services , World Wide Web (WWW) History, Working, Web Browsers, Its function Concept of Search Engines, client server architecture

UNIT-II

Internet : Evolution, Protocols, Interface Concepts, Internet Vs Internet, Growth of Internet, ISP, Connectivity - Dial-up, Leased line, VSAT etc., URLs, Domain names, Portals, Applications.

E-Mail :Concepts , Basics of Sending & Receiving, E-mail, Free E-mail services.

UNIT-III

Transfer Protocols, Telnet & Chatting , Client/Server Architecture Characteristic, FTP & its usages. Telnet Concept, Remote Logging, Protocols, Internet chatting - Voice chat, text chat.

UNIT-IV

Searching the Web, HTTP, URLs, Web Servers, Web Protocols. Web Publishing Concepts, Domain Name Registration, . HTML, Design Tools, HTML Editors , Image Editors .

UNIT-V

HTML Concepts of Hypertext, Versions of HTML, Elements of HTML Syntax, Head & Body Sections, Building HTML Documents, Inserting Texts, Images, Hyperlinks, Backgrounds And Colour Controls, Different HTML Tags, Table Layout and Presentation, Use of Font Size & Attributes, List types and its Tags.

Text & Reference Book :

1. *LEVEL MODULE - M 1.2 - INTERNET & WEB PAGE DESIGNING BY V.K.JAIN BPB PUBLICATIONS.*
2. *INTERNET FOR EVERYONE - ALEXIS LEON AND MATHEWS LEON, VIKAS PUBLICATIONS.*
3. *INTERNET FOR DUMMIES - PUSTAK MAHAL, NEW DELHI*
4. *A BEGINNER'S GUIDE TO HTML*
[HTTP://WWW.NCSA.NINE.EDIT/GENERAL/INTERNET/WWW/HTML.PRMTER](http://www.nca.nine.edit/general/internet/www/html.prmter)

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Desktop Publishing

UNIT-I

D.T.P For Publications

Introductions to Printing, Types of Printing, Offset Printing, Working of offset Printing, Transparent Printout, Negative & Positives for Plate were making, Use of Desk Top Publishing in Publications, Importance of D.T.P in Publication, Advantage of D.T.P in Publication, Mixing of graphics & Image in a single page production, Laser printers - Use, Types, Advantage of laser printer in publication

UNIT-II

Page Layout

Different page format / Layouts, News paper page format, Page orientations, Columns & Gutters, Printing in reduced sizes.

Introductions To Page Maker

Page Maker Icon and help, Tool Box, Styles, Menus etc., Different screen Views, Importing text/Pictures, Auto Flow, Columns,

UNIT-III

Master Pages and Stories, Story Editor, Menu Commands and short-cut commands, Spell check, Find & Replace, Import Export etc., Fonts, Points Sizes, Spacing etc., Installing Printers, Scaling (Percentages), Printer setup Use of D.T.P. in Advertisements, Books & Magazines, News Paper, Table Editor

UNIT-IV

Introduction to Adobe Photoshop & Documents, Various Graphic Files and Extensions, Vector Image and Raster Images, Various Colour Modes and Models.

UNIT-V

Introduction to Screen and Work Area, Photoshop Tools & Palettes ,Use of Layers & Filters, Working with Images

TEXT & REFERENCE BOOKS:

1. *PAGE MAKER 4.0 & 5.0 BY B.P.O. PUBLICATIONS.*
2. *PRAKHAR COMPLETE COURSE FOR DTP (CORELDRAW, PAGEMAKER, PHOTOSHOP)*