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UNIT–I
Brief History of Development of Computers, Computer System Concepts, Computer System Characteristics, Capabilities And Limitations, Types of Computers, Basic Components of A Computer System - Control Unit, ALU, Input/output Functions and Characteristics, Memory RAM, ROM, EPROM, PROM and other types of Memory.

UNIT–II
Input/Output & Storage Units-: Keyboard, Mouse, Trackball, Joystick, Digitizing tablet, canners, Digital Camera, MICR, OCR, OMR, Barcode Reader, Voice Recognition, Light pen, Touch Screen, Monitors - characteristics and types of monitor -Digital, Analog, Size, Resolution, Refresh Rate, Interlaced / Non Interlaced, Dot Pitch, Video Standard - VGA, SVGA, XGA etc.

UNIT–III
Printers And Its Types - Dot Matrix, Inkjet, Laser, 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, Hard Disk Drives, Floppy Disks , Optical Disks, Flash Drives Video Disk, MMC Memory Cards, Physical Structure of Floppy & Hard Disk, Drive Naming Conventions In PC.

UNIT–IV

UNIT–V

TEXT & REFERENCE BOOKS:
1. COMPUTERS TODAY, BY S.K BASANDRA, GALGOTIA PUBLICATIONS.
2. FUNDAMENTALS OF INFORMATION TECHNOLOGY ALEXIS LEON & MATHEWS LEON, , VIKAS PUBLISHING
3. DOS QUICK REFERENCE RAJEV MATHUR, , GALGOTIA PUBLICATIONS
UNIT–I

DISK OPERATING SYSTEM (DOS): Introduction, History & Versions of DOS, DOS Basics - Physical Structure of Disk, Drive Name, FAT, File and Directory Structure and Naming Rules, Booting Process, DOS System Files. DOS Commands: Internal - DIR, MD, CD, RD, COPY, COPY CON, DEL, REN, VOL, DATE, TIME, CLS, PATH, TYPE, VER etc. External - CHKDSK, XCOPY, PRINT, DISKCOPY, DOSKEY, TREE, MOVE, LABEL, FORMAT, SORT, FDISK, BACKUP, EDIT, MODE, ATTRIB, HELP, SYS etc, Executable V/s Non Executable Files in DOS.

UNIT–II


UNIT–III


UNIT–IV

LINUX: History & Features of Linux, Linux Architecture, File System of Linux, Hardware Requirements of Linux, Various flavors of Linux, Linux Standard Directories, Functions of Profile and Login Files in Linux, Linux Kernel,

UNIT–V

WORKING WITH LINUX: KDE & Gnome Graphical Interfaces, Various Types of Shell Available in Linux, Multi-User Features of Linux, Login and Logout from Linux System, Linux commands - bc, cal, cat, cd, clear, cmp, cp, mv, date, find, ls, pwd, mkdir, more, rm, rmdir, chgrp, chmod, chown, tty, wc, who, whois, grep, telnet, vi editor, Using Floppy, CD-ROM and Pen Drive in Linux, Permissions and Ownerships,

TEXT & REFERENCE BOOKS:
1. DOS QUICK REFERENCE BY RAJEEV MATHUR, GALGOTIA PUBLICATIONS LINUX COMPLETE BY BPB PUBLICATIONS
2. PETER NORTON COMPLETE GUIDE TO LINUX BY PETER NORTON, TECHMEDIA PUBLICATIONS
3. LEVEL MODULE M 1.1 INFORMATION TECHNOLOGY BY KHANNA BOOK PUBLICATIONS, NEW DELHI
4. WINDOWS XP COMPLETE REFERENCE, BPB PUBLICATION
UNIT–I
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.

UNIT–II
Advanced Features of MS-Word: Spell Check, Thesaurus, Find & Replace; Headers & Footers, Inserting – Page Numbers, Pictures, Files, Autotexts, 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–III

UNIT–IV
Advanced Features of MS Excel: Multiple Worksheets: Concept, Creating and Using Multiple Worksheets; Use of Formulas, Calculations & Functions, Various types of Functions, Cell Referencing, Absolute and Relative Addressing, Working with Different Chart Types, Chart Wizard, Printing of Workbook & Worksheets with various options, Database: Creation, Sorting, Query and Filtering a Database; Creating and Using Macros;

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.

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
UNIT–I
Basics of RDBMS
Introduction to database -What is a Database, Why use a Relational Database, Overview of Database Design –Data Normalization (Determining tables, Determining Fields, Determining Relationships) Integrity Rules (Primary/Foreign Key, One-to-Many, Many-to-Many, One-to-One) Introduction to MS Access (Objects, Navigation).

UNIT–II
Tables in Database
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
Working with Query
Setting up Relationships- Define relationships, 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 AND, OR , advance filter Queries, 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
Working with Forms
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
Working with Reports

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 . ISBN 81- 203-1893-5
3. MICROSOFT® ACCESS® STEP BY STEP BY COX & LAMBERT PHI LEARNING ISBN PB 9788120342019
AKS University, Satna
Post Graduate Diploma in Computer Application (PGDCA)
Semester: II

System Analysis and Design

UNIT–I
System Concept: Definition, Characteristics, Elements of system, Physical and abstract system, open and closed system, System Development Life Cycle: Various phases of system development, Considerations for system planning and control for system success. System Planning.

UNIT–II

UNIT–III
Tools of Structured Analysis: Data Dictionary, Form, Gantt Charts, System Model, Pseudo Codes, Flow Chart System Flow Chart, Decision Tree, Decision Tables, Input/ Output and Form Design: Input and Output Form Design Methodologies, Menu, Screen Design, Layout Consideration.

UNIT–IV

UNIT–V

TEXT & REFERENCE BOOKS:
1. SYSTEM ANALYSIS & DESIGN BY V K JAM, DREAMTECH PRESS
2. MODERN SYSTEM ANALYSIS & DESIGN BY A HOFFER, F GEORGE, S VALACIAH LOW PRICED EDN. PEARSON EDUCATION.
3. INFORMATION TECHNOLOGY & COMPUTER APPLICATIONS BY VK.KAPOOR SULTAN CHAND & SONS, NEW DELHI.
UNIT–I
Introduction to .NET, NET Framework features & architecture, CLR, Common Type System, MSIL, Assemblies and class libraries. Introduction to Visual studio, Project basics, types of project in .Net, IDE of VB.NET-Menu bar, Toolbar, Solution Explorer, Toolbox, Properties Window, Form Designer, Output Window, Object Browser. The environment: Editor tab, format tab, general tab, docking tab. visual development & event driven Programming -Methods and events.

UNIT–II
The VB.NET Language- Variables -Declaring variables, Data Type of variables, Forcing variables declarations, Scope & lifetime of a variable, Constants, Arrays, types of array, control array, Collections, Subroutines, Functions, Passing variable, Number of Argument, Optional Argument, Returning value from function. Control flow statements: conditional statement, loop statement. MsgBox & Inputbox.

UNIT–III
Working with Forms: Loading, showing and hiding forms, controlling One form within another.GUI Programming with Windows Form: Textbox, Label, Button, List box, Combo box, Checkbox, Picture Box, Radio Button, Panel, Scroll bar, Timer, List View, Tree View, Toolbar, Status Bar. Their Properties, Methods and Events. Open File Dialog, Save File Dialog, Font Dialog, Color Dialog, Print Dialog. Link Label. Designing menus : Context Menu, access & shortcut keys.

UNIT–IV

UNIT–V
Database programming with ADO.NET - Overview of ADO, from ADO to ADO.NET, Accessing Data using Server Explorer. Creating Connection, Command, Data Adapter and Data Set with OLEDB and SQLDB. Display Data on data bound controls, display data on data grid.

TEXT & REFERENCE BOOKS:
1. VB.NET PROGRAMMING BLACK BOOK BY STEVEN HOLZNER- DREAMTECH PUBLICATIONS
2. MASTERING VB.NET BY EVANGELOS PETROUTSOS - BPB PUBLICATIONS
3. INTRODUCTION TO.NET FRAMEWORK -WORX PUBLICATION
4. MSDN. MICROSOFT. COM/ NET/ WWW.GOTDOTNET.COM
UNIT–I
Internet - Evolution, Protocols, Interface Concepts, Internet Vs Intranet, Growth of Internet, ISP, Connectivity - Dialup, Leased line, VSAT etc., URLs, Domain names, Portals, Application. E-MAIL - Basics of Sending & Receiving, Free Email services. FTP & its usages. Telnet Concept, Internet chatting - Voice chat, Text chat.

UNIT–II

UNIT–III
HTML - Concepts Of Hypertext, Versions of HTML, Elements of HTML, Syntax, Head & Body Sections, Building HTML Documents. Inserting Texts, Images, Hyperlinks, Backgrounds And Color 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.

UNIT–IV
JavaScript Overview, syntax & conventions. Variables, Expressions, Branching & Looping statements, Functions, Arrays Objects, Events & Document Object Model – on Click, on Mouse Over, on Submit, on Focus, on Change, on Blur. On Load, on Unload. Alerts, Prompts & Confirms.

UNIT–V

TEXT & REFERENCE BOOKS:
1. O LEVEL MODULE - M 1.2 - INTERNET & WEB PAGE DESIGNING BY V.K.JAIN – BPB PUBLICATIONS.
2. E-COMMERCE AN INDIAN PERSPECTIVE (SECOND EDITION) - BY P. T. JOSEPH, S.J.PRESENICE-HALL OF INDIA
3. INTERNET FOR EVERYONE - ALEXIS LEON AND MATHEWS LEON, VIKAS PUBLISHING HOUSE PVT. LTD., NEW DELHI
4. INTERNET FOR DUMMIES - PUSTAK MAHAL, NEW DELHI
5. A BEGINNERS GUIDE TO HTML AVAILABLE AT: HTTP://WWW.NCSA.UIUC.EDU/GENERAL/INTERNET/WWW/HTMLPRIMERALL.HTML
   INTRODUCTION TO JAVASCRIPT AVAILABLE AT - WWW. MCU. AC. IN/JAVASCRIPTGUIDE.PDF
UNIT–I
1. Basic Concepts of Accounting, Financial Statements, Financial Statement Analysis, Cost Centre, Basic concepts of Inventory
2. Tally Configuration & INI setup, Data Directory & Folders configuration, Single & Multiple User, Tally Screen Components, Mouse / Keyboard Conventions & Key, Combinations, Switching between screen areas, Quitting Tally. Maintaining Company Data, Basic Company Details, Create/Alter/Select/Load/Close a Company, Chart of Accounts, Company Features, and Configuration.

UNIT–II
1. Create, Alter & Display
   a. Groups and Ledgers
   b. All accounting voucher types
3. Bank Reconciliation, Interest calculations using simple & advance parameters, Interest calculations on outstanding balances & on invoices, Use of voucher class, adjustment of interest. Creation of voucher class, Invoice entry in a class situation.
4. Create, Alter & Delete Budgets for groups, ledgers & cost centre, Defining credit limit & credit period, Display Budgets & variances, Create, Alter & Delete a scenario.
5. Journal Transactions, payment voucher, Godown summary

UNIT–III
1. Reports like balance sheet, Profit & Loss account, Ratio analysis Trial Balance.

UNIT–IV
1. Create, Alter & Display Stock Groups and Stock Items,
2. All inventory voucher types and transactions Inventory details in accounting vouchers.
3. Reports like Stock summary, Inventory books like Stock item, Group summary, Stock transfers, Physical stock register, Movement analysis, Stock group & item analysis, stock category analysis Ageing analysis, Sales order & Purchase order book, Statement of inventory related to Godowns, categories, stock query, Reorder status, Purchase & Sales order summary, Purchase & Sales bill pending, Exception reports like negative stock & ledger, overdue receivables & payables, memorandum vouchers, optional vouchers, post-dated vouchers, reversing journal

UNIT–V
2. Creating Group Company, Use of Tally vault, Using Security control & defining different security levels, Use of Tally Audit.
3. Back-up & Restore, Splitting company data, Export & import of Data, ODBC compliance, use of E-mail, Internet publishing, Upload, web browser & online help, Re-write data.

TEXT & REFERENCE BOOKS
1. IMPLEMENTING TALLY 6.3 BY NADHANI; ISBN: 81 7656494X BPB PUBLICATIONS,
2. BPB TALLY 6.3 BY BPB EDITORIAL BOARD (HINDI) BPB PUBLICATIONS ISBN81 - 7656-594-6