



# **Diploma in Computer Application (DCA)**

## **Scheme and Syllabus**

**Department of Computer Science**

**AKS University, Satna (MP)**

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

Sr no	Subject Code	Subject Name	L	T	P	Credit
1	92CA104	Computer Fundamentals	4			4
2	92CA105	PC-Packages (Word, Excel, PowerPoint)	4			4
3	92CA106A/B	<b>Elective I:</b> Database using MS-Access Database using FoxPro	4			4
4	92CA153	PC-Packages (Word, Excel, PowerPoint) <b>(Lab)</b>			3	2
5	92CA154 A/B	<b>Elective I: (Lab)</b>			3	2

**AKS University, Satna**  
**Diploma in Computer Application (DCA)**  
**Semester-II**

Sr no	Subject Code	Subject Name	L	T	P	Credit
1	92CA204	IT Trends	4			4
2	92CA205	Internet and E-commerce	4			4
3	92CA206 A/B	<b>Elective II:</b> Multimedia with Corel Draw DTP with PageMaker and Photoshop	4			4
4	92CA253	Internet and E-Commerce <b>(Lab)</b>			3	2
5	92CA254 A/B	<b>Elective I: (Lab)</b>			3	2

# DCA

## SEMESTER-I 1DCA1 - COMPUTER FUNDAMENTALS

### UNIT-I

Brief History of Development of Computers, Computer System Concepts, Computer System Characteristics, Basic Components of Computer System - Control Unit, ALU, Input/Output, Semiconductor Memory Functions and Characteristics, **Memory** - RAM, ROM, EPROM, PROM and Other Types of Memory, Capabilities and Limitations, Generations of Computers, Analog, Digital & Hybrid Computers, General & Special Purpose Computers, **Types of Computers** — Micro, Mini, Mainframe, Supercomputers, Characteristics, Area of Uses.

**Personal Computer (PCs)** - Evolutions of PCs, Configurations of PCs, Pentium and Newer, Specifications and Characteristics, Types of PCs- Desktop, Laptop, Notebook, Palmtop, PDA etc.

### UNIT-II

**Input Devices:** Keyboard, Mouse, Trackball, Joystick, Scanners, Digitizing tablet, Digital Camera, MICR, OCR, OMR, Light pen, Barcode & Barcode Reader, Quick Response Code (QR Code), Voice Recognition, Touch Screen.

**Output Devices:** Monitors- Characteristics and types of monitor, Size, Digital, Analog, Resolution, Refresh Rate, Interlaced / Non-Interlaced, Dot Pitch, Video Standard - VGA, SVGA, XGA etc. Printers and its Types Impact and Non-Impact printer, Dot Matrix, Inkjet, Laser, Plotter, 3D Printers, Sound Card and Speakers.

### UNIT—III

**Storage Fundamentals** - Primary Vs Secondary Data Storage and Retrieval Methods - Sequential, Direct and Index Sequential, Various Storage Devices - Magnetic Disks, Hard Disk Drives, Floppy, Disks, *Zip* Drive, Optical Disks, CD, VCD, CD-R, CD-RW, DVD, DVD-RW, Video Disk, Blue Ray Disc, Flash Drives SD/MMC Memory cards, Solid-State Drive (SSD), Physical Structure of Floppy & Hard Disk, Drive Naming Conventions in PC.

### UNIT—IV

**Software and Its Need-** Software, Types of Software- System Software, Application Software. **System Software-** Operating System- definition & function, Device Drivers & Utility Programs, Introduction & Features of DOS, Windows, Programming Language Machine, Assembly, High Level, 4GL, their Merits and Demerits, Uses of Assemblers, Compilers and Interpreter. **Application Software-** Application Software and its Types- Word Processing, Spreadsheet, Presentation Graphics, Data Base Management, Desktop Publishing, Communication, Educational, Graphics & Multimedia, Business Accounting, MIS, Gaming and ERP Software.

**Computer Coding System-**ASCII, ISCII and Unicode, Number system of computers- Binary, Octal, Decimal, Hexadecimal their Conversion.

### UNIT-V

**Communication** - Use of communication and IT, Communication Process, Component of Communication— sender, receiver, Transmission Medium & Protocol, Communication Types-Simplex, Half Duplex, Full Duplex, Communication Channels-Twisted, Coaxial, Fiber Optic, Modem-Working And Characteristics, Types of Network-Client/Server and Peer-to-Peer Networks, Types of Connections-Dialup, Leased Lines, ISDN, DSL, RF, Broadband Uses, Advantages & Disadvantages, Types of Network-LAN, WAN, MAN, Internet, VPN. Topologies of LAN-Ring, Bus, Star, Mesh and Tree Topologies Structure, Uses, Advantages & Disadvantages, Components of LAN-Media, NIC, NOS, Network Devices- Bridges, HUB, Routers, Repeater, Gateways Uses, Advantages & Disadvantages.

### **Reference Books:**

- Fundamentals of Computers, Paperback by Reema Thareja, Oxford University Press.
- Computer Fundamentals - 6th Edition by Pradeep K. Sinha, Priti Sinha, BPB Publications.
- Computers Today, A. Ravichandran, Khanna Book Publishing.
- Handbook of Computer Fundamentals by Nasib Singh Gill, Khanna Publishers.

## SEMESTER-I

### 1DCA2 - PC PACKAGES (WORD, EXCEL, POWERPOINT)

#### UNIT-I

**Operating System (Windows 8.1):** Overview of Windows Operating System, Basic Operations-How to start a computer, login, logoff, Hibernate, Shutdown etc, Personalizing Desktop-Desktop Background, Icon, Screen Saver, Themes, Setting date & time, Task bar, Files & Folders, Create, Copy, Rename, Moving & Delete files & Folders, Create & Using Shortcuts, Recycle Bin.

**Accessories**-MS Paint, Notepad, WordPad, Windows Media Player, Calculator, Games, Math Input Panel, Language Settings-How to Set Other Languages on Computer, Using Control Panel to Add, Remove or Configuring New or Existing Devices and Software Programs and Fonts, Enhance the Performance of Computer, Using Disk Clean-Up, Using Disk Defragmenter, Using Windows Update, Protecting Computer Against Viruses.

#### UNIT-II

**MS Word:** Introduction to MS Office (2013), Introduction to MS Word, Features & Area of Use. Various Versions of MS Office, Working with MS Word, Menus & Commands, Ribbon, Toolbars & Buttons, Shortcut Menus, Wizards & Templates, Creating a New Document, Different Page Views and Layouts, Applying Various Text Enhancements- Fonts, Styles, Text Attributes, Formatting Your Text and Documents: Auto format, Paragraph and Page Formatting, Line spacing, Margins, Borders and Shading, Tabs and Indents, Text Editing using various features, Bullets, Numbering, Working with Styles, Printing & Various Print Options, Working with Headers and Footers, Tables: Creating a Simple Table, Creating a Table Using Table Menu, Entering and Editing Text in a Table.

#### UNIT-III

**Advanced Features of MSWord**-Spell Check, Thesaurus, Find & Replace, Files, Auto Texts, Symbols etc., Working with Columns, Tabs & Indents, Margins & Space management in Document, Page, Column & Section Breaks, Adding References, Using Footnote and Endnote in Documents, Creating Automatic Table of Contents, Mail Merge in MS Word, Mail Merge concept, Envelops & Mailing Labels, Importing and exporting to and from various formats

**Graphics:** Importing graphics, Clipart, Insert Picture, Using Clip Art, Shapes and SmartArt in documents, using drawing features, drawing objects, text in drawing. Taking and inserting Screenshots in Documents, Using WordArt and Drop Cap features in Documents.

#### UNIT-IV

**MS Excel** - Spreadsheet Basics & Features, Concepts of Workbook & Worksheets, Getting Started, Creating New Worksheet, Using Wizards, Various Data Types, Selecting Cells, Entering and Editing Text & Numbers, Removing & Resizing of Columns & Rows, Entering and Editing Formulas, Referencing Cells, Moving Cells, Copying Cells, Sorting Cell Data, Inserting Rows, Inserting Columns, Inserting Cells, Deleting and Clearing Parts of Worksheet, Different Views of Worksheets.

**Formatting:** Page setup, Cell Formatting, Changing Column Widths & Row Heights, Auto Format, Changing Font Sizes and Attributes, Centering Text Across Columns, Using Border Buttons and Commands, Changing Colors and Shading, Hiding Rows & Columns, Working with Data & Ranges, Column Freezing, Labels, Hiding, Splitting, Merging.

**Charts:** Chart Parts, Terminology, Chart Wizard, Different Types of Charts, Printing Charts, Deleting Charts, Printing of Workbook & Worksheets with Various Options

## UNIT-V

**MS PowerPoint:** Introduction & Area of Use, Working with MS PowerPoint, Creating 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, Shapes, Screenshots, SmartArt, Charts in Presentation, Sounds and Movies in Slide; Working with PowerPoint Objects, Designing & Presentation of Slide Show, Change Slide Backgrounds, Change Slide Size, Using Animation and Transitions in Presentation, **Advanced Slide Options-** Manual & Automatic, Printing Presentations, Notes, Handouts with Print Options, Slide Master, Handout Master and Notes Master.

### *Reference Books:*

- Introducing Windows 8.1 for IT Professionals Technical Overview, ED BOTT, Microsoft Press e-book download from [https://blogs.msdn.microsoft.com/microsoft\\_press/2013/10/14/free-ebook-introducing-windows-8-1-for-it-professionals/](https://blogs.msdn.microsoft.com/microsoft_press/2013/10/14/free-ebook-introducing-windows-8-1-for-it-professionals/)
- Windows 8.1 by Pert Mason, Bookboon Download online at <http://bookboon.com/en/windows-8-1-english-ebook>.
- Windows 8.1 In Depth, by Knittel, PEARSON
- Windows 8.1 Plain and Simple by Joli Ballew, Nancy Muir, PHI
- MCSA Microsoft Windows 8.1 Complete Study Guide: Exams 70-687, 70-688, Jeffrey R. Shapiro, Darril Gibson, Wiley India.
- Windows 8.1 For Dummies by Andy Rathbone, Wiley India.
- Office 2013 in Simple Steps, Kogent Learning Solutions Inc., Wiley India
- Microsoft Office 2013 Bible, Lisa A. Bucki, John Walkenbach, Faithe Wempen, Michael Alexander, Dick Kusleika, Wiley India.
- Microsoft Office 2013 Edition Inside Out, Bott Ed, Siechert, Carl, Prentice Hall of India (PHI).
- Microsoft Office Professional 2013 Step by Step, Melton, Beth, Dodge, Mark, Swinford, Echo, Couch, Andrew, Legault, Eric, Schorr, Ben M., Rusen, Ciprian Adrian, Prentice Hall of India (PHI).
- Learning Microsoft Office 2013, Paperback by Ramesh Bangia, Khanna Book Publishing.
- Microsoft Office 2013: Digital Classroom, Paperback by Walter Holland, ACI Creative Team, WILEY.

## **SEMESTER-I**

### **1DCA3(A) - DATABASE USING FOXPRO (ELECTIVE-I)**

#### **UNIT-I**

The RDBMS for PC, Concept of database, FoxPro - Versions, features, requirement of Hardware and Software FoxPro- Menu System, Working with FoxPro Creating Database File Some common operations on data- CREATE, LIST, APPEND, CLOSE, QUIT, FoxPro- Data Types Viewing and editing Data ,Data Displaying Commands- LIST, DISPLAY, LOCATE, EDIT, CHANGE, BROWSE, REPLACE, DELETE, RECALL, PACK (All Commands with various Options)

#### **UNIT-II**

File utilities in FoxPro Modify Structure, Memo Field and File Utilities- DISPLAY DIRECTORY, COPY, DELETE, RENAME. Sorting and Indexing of Database Files Sorting & Indexing Concept Sort Commands- Single & Multiple Key Advantage & Disadvantages of Sort, Indexing Vs Sorting, Single & Multiple Key, Indexing, FIND, SEEK, FoxPro Report- its creation, features & Utilities, Preview, Printing Custom Report, grouping & Sub grouping, FoxPro Label- Designing & Printing

#### **UNIT-III**

Memory Variables, Date & Time Functions and, Keyboard Macros, Memory Variables- Creation and Uses, Simple Vs Array Saving and Restoring Memory Variables, ?/?/?/? Commands Time & Date Functions and Commands, Date Arithmetic, Converting Defining Function Keys, Keyboard Macros- Creating and Using Mathematical Commands, Functions, Arithmetic Operations, Mathematical Functions.

#### **UNIT-IV**

Programme with Foxpro Concepts of FoxPro commands file, Modify Commands Conditioning, Branching and Looping within Program files with, Do- While Enddo, If- Endif, Scan-End scan, For- Endfor, Docase Endcase,Text- Endtext, Executing Commands from other command files, Macro Substitution, Common Error Messages, Debugging techniques and commands

#### **UNIT-V**

Concept of Multiple Database Files- Using Multiple Database Files, Relation in 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,@LEDIT,@\_SAY\_GET\_READ, Creating Box & Lines, User Define Functions, Custom Screen Designing and their Use, FoxDoc for documentation

#### ***Reference Books:***

- Foxpro made simple by R.K. Taxali, BPB publications.
- Mastering Foxpro 2.5 BPB Publications.
- Foxpro 2.6 for Dummies- Pustak Mahal.

## SEMESTER-I

### 1DCA3(B) - DATABASE USING MS ACCESS (ELECTIVE-I)

#### 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 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—1V

**Form:** 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

**Reports:** 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.

#### *Reference Books:*

- MS Office XP complete BPB publication ISBN 8 1-7656-564-4.
- MS Access Fast & Easy by Faithe Wempen, PHI

## SEMESTER-II

### 2DCA1 - IT TRENDS

#### UNIT-I

Multimedia Definition and concept, need of Multimedia, areas of use, multimedia elements- Text, Images, Sound, Animation and Video, Multimedia Hardware and Software requirement. Making simple Multimedia with PowerPoint Application of multimedia in different industries— Education, Entertainment, Journalism etc., Future of Multimedia, Career in Multimedia Production

#### UNIT-II

Text as a component of Multimedia, Concepts of plain & formatted text, RTF & HTML texts, Object Linking and Embedding concept, Fonts- need & types, Importance of sound in Multimedia, Mono V/S Stereo Sound, Effects in Sound, Analog V/S Digital Sound, Overview Of Various Sound File Formats on PC WAV, MP3. Concept of MIDI, Software for sound editing and mixing.

#### UNIT-III

E-governance, E-democracy, Government efforts to encourage citizen participation, PPP model, E-governance websites & services- SAMADHAN online, CM Helpline, MPOne services, mygov.in of government of India UIDI & Adhar, E-governance mobile apps like umang, Digital Locker, Digital Library, Introduction to cyber crime, types of attacks & crime - email fraud, phishing, spoofing, hacking, spyware, malware, spam mail, logic bombs, denial of service, identity theft.

#### UNIT-IV

Introduction to wireless LAN, Blue tooth, WiFi, WiMax Mobile technology, 2G, 3G, 4G services, IMEI, SIM, IP Telephony, Soft phone, Voice mail, Ad-hoc & sensor networks, GIS, ISP Mobile Computing, Cellular System Cell, Mobile Switching office, Hands off, Base Station

#### UNIT-V

**Artificial Intelligence and Expert system-** Concepts of AI & Expert Systems, Merits and Demerits of Expert system, Application of Expert system and AI Cloud computing- Introduction, types, application, services, Google drive, Google Doc, Google form

#### *Reference Books:*

- Fundamentals of Information Technology by Alex Leon & Leon, Vikas Publications
- Frontiers of Electronic Commerce, By- Kalakota, Ravi; Stone, Tom, Whinston, Andrew B, Addison Wesley Publishing Co, ISBN 8178080575
- E-Commerce An Indian Perspective (Second Edition) By Pt Joseph, S.J., Prentice-Hall of India.
- Recent Magazines of Computers and Communication.
- Multimedia: Making It Work (4th Edition) By Thyvaughan, Tata Mcgraw Hills.
- Multimedia in Action James E Shuman, Vikas Publishing House

## SEMESTER-II

### 2DCA2 - INTERNET AND E-COMMERCE

#### UNIT-I

**Introduction to Internet** - Internet Evolution, World Wide Web (WWW), Advantages and Disadvantages, Internet Vs Intranet, the purpose and function of an Internet Service Provider (ISP), Connectivity - Dialup, Leased line, VSAT , URLs, Portals, Internet Services, Application, E-MAIL- Basics of Sending & Receiving, Free Email services, Protocols, FTP, DNS, TCP, UDP, HTTP, IP Telnet Concept, Internet chatting- Voice chat, Text chat, Web Servers, Space on Host Server for Website, Web Portals & Web publishing concepts, Domain name registration.

#### UNIT—II

Applications of Internet, Basic Operations using Internet Browser-Working with browsers, View History in Browser, Search Engines, Searching information on Wikipedia, Subscribing and reading newspapers online, Typing text in the regional language- Google input tools, Using Google Maps, Working with Google Apps, Online Ticket Booking, Apply for PAN Card/Passport /Aadhar Card online, Pay electricity bill and service tax online, Booking gas refill online, Downloading eBooks, Create & using Bookmarks, Using JustDial/quikr.com/getit.co.in/sulekha.com to find online services, social sites, Client server architecture & characteristics, Telnet (Remote login concepts) & FTP its uses.

#### UNIT-III

**HTML**- Concepts of Hypertext, Versions of HTML, Elements of HTML, HTML editors, Tags and attributes, Syntax, Head & Body Sections, Building, HTML Documents. Inserting Texts, Images, List & its type, Hyperlinks, Backgrounds And Color Controls, Table Layout and Presentation, Use of Font Size & Attributes, List Types and Its Tags, Use of Frames and Forms in, Web Pages HTML, Form and frame Design tools.

#### UNIT-IV

**JavaScript** - Overview, syntax & conventions. Variables, Expressions, Branching & Looping statements, Functions, Arrays Objects, Events & Document Object Model-onClick, onMouseOver, on Submit, on Focus, on Change, onBlur, onLoad, onUpload. Alerts, Prompts & Confirms.

#### UNIT-V

**E-Commerce**- Introduction, Electronic Commerce Framework, Evolution of E-commerce, Advantages and Disadvantage of E-commerce, Introduction, E-organization, Electronic Payment Systems, Electronic Cash, Smart Cards and Credit Card Based, Risks, Online Banking, E-Banking, E-Wallet, E shopping, E—Marketing: The scope of E-Marketing, M-commerce- introduction, Potential Growth and Future, Mobile banking, Paytm, Bhirn, UPI app etc.

#### *Reference Books:*

- Level Module - M 1.2 - Internet & Web Page Designing by V. K. Jain — Bpb Publications.
- E-Commerce an Indian Perspective (Second Edition) - By P. T. Joseph, S.J. Prentice-Hall of India.
- Internet for Everyone - Alexis Leon And Mathews Leon, Vikas Publishing House Pvt. Ltd., New Delhi
- Internet for Dummies - Pustak Mahal, New Delhi
- Introduction to JavaScript Available at - [www.mcu.ac.in/javascriptguide.pdf](http://www.mcu.ac.in/javascriptguide.pdf)

## **SEMESTER-II**

### **2DCA3(A) - MULTIMEDIA WITH COREL DRAW**

#### **(ELECTIVE-I)**

##### **UNIT-I**

Graphics in Multimedia, Importance of Graphics in Multimedia, Vector and Raster Graphics, Image Capturing Methods Scanner, Digital Camera Etc. Various Attributes of Images - Size, Color, Bit Depth, Resolution etc, Various Image File Format BMP, DIB, EPS, PIC, and TIF Format Their Features and limitations

##### **UNIT-II**

Video and Animation in Multimedia, Impact of Video in Multimedia, Basics of Video Analog and Digital Video, How to use video on PC, Brief note on various video standards PAL, NTSC, Different file formats and their use in Multimedia, MPEG, AVI, MJPG, Name of video editing software, Basics of Animation, Types of Animation and use of Animation, Software for Creating Animations

##### **UNIT-III**

Introduction to Corel draw, Usage and Advantages, Introduction to User Interface, Introduction to tool panel and workspaces, Introduction to various size and formats of panels and layouts, File layouts and layout properties, Objects and using color profiles

##### **UNIT-IV**

Text tools and text properties, Creating Vector graphics by using editing tools, Importing Images and graphics in Corel draw layout, Creating shapes and editing shapes, Drawing curves and editing curves, Creating special text effects, Creating special object effects, Using color effects

##### **UNIT-V**

Using grid and rulers, Tracing images and graphics, Working with borders and page arrangements, Using Masking effects with Text, Using Masking effects with objects

#### **Reference Books:**

- Learn Corel Draw 11 by BPB PUBLISHING
- Corel Draw the official Guide by Gray David Bouton, Corel Press
- Corel Draw Course 11, 12, X to X5 BY VISHNU P. SINGH, BPB PUBLISHING

**SEMESTER-II**  
**2DCA3(B) - DTP WITH PAGEMAKER & PHOTOSHOP**  
**(ELECTIVE-II)**

**UNIT-I**

**DTP-** Introduction to Desk Top Publishing, Introduction to Desk Top Publishing (DTP), History, Definition, Need and Area of Application, Difference between a word processor and Publication Software, Use and importance of DTP in Publication & Newspaper Printing, Various DTP Softwares, Introduction to Offset Printing Technology, Printers Formatting of a text: Typography, Fonts, Point Size, Spacing, Breaks, Measurements etc., Types of Printing: Lithography, Flexography, Gravure, Screen Printing, Offset Printing. Working of offset Printing, Terms used in Offset Printing: Bleed, CMYK, Impressions, Importance of D.T.P in Publication, Advantage of D.T.P in Publication. Laser printers - Use, Types, Advantage of laser printer in publication

**UNIT-II**

**Adobe Page Maker** - Introduction to Page Maker, Aldus & Adobe Page Maker, Previous and current versions of Page Maker, Page Maker as a DTP Software, Attribute settings: Tools, Styles, Menus, Alignments, Grids, Guides etc., Keyboard shortcuts, Page Layouts- Margins and Page Orientations with various page sizes, Text Editing and Manipulation, Filters, Import and Export options, Placing of Text and Images, Auto flow and Story Editor, Different Layout views, Tab setting, Columns & Gutters, Use of Styles, Palettes & Colors, Find Option & Document Setup

**UNIT—III**

**Adobe Page Maker-** Page and document setup, working with rulers, setting the unit measurement, Bullets, Column Balancing, Breaks, Text Wrapping, Widows & Orphan lines, Revert Command and its use, Using Drop Caps and various style formats, Editing of Graphics and Frames, OLE & Embedding, Plug-ins, Mathematic Equation, Table Editor and its use, Master Pages, Headers & Footers, Frame Options, Print Setup Options, Managing and Printing Publications - Tiles, multiple copies etc. Use of Page Maker in News paper and Magazines

**UNIT-IV**

**Photoshop** - Introduction to Adobe Photoshop, Photoshop Documents, Various Graphic Files and Extensions- JPG, GIF, PNG, TIF, BMP, PSD, CDR, SVG etc., Graphic Files: Vector Image and Raster Images. Definition, Features, Area of application etc., Advantages and Disadvantages Vector & Raster Graphics, Bitmap Graphics, Pixels, Application Programs to work on Vector Graphics and Raster Graphics, Various Color Modes and Models: HSB, RGB, CMYK, Bitmap, Grayscale, Duotone. **Image:** Image Size and Resolution, Changing Image Size and Resolution, Getting Image from Input Devices, Creating New image in Photoshop, Using File Browser, Opening and Importing Selecting Image, Adjusting Pixel, Snap command, Saving and Loading Selection, Deleting Selection

**UNIT-V**

**Photoshop** - Introduction PSD files. Screen and Work Area Interfaces: Menu Bar, Option Bar, Palette, Active Image Area, Tool Box List etc, Opening a File, Saving a File, Closing a File, Tool: Icons, Name and usage of Each tool, Setting History Option, Photoshop Layers & Palettes: Use of Layers, Why Use Layers, Using layer palette, Creating Layers and Layer Sets, Background layer, **Working with layered Image:** Layer and Layer sets, Selecting Layers, Displaying Content of a Layer, Duplicating Layers, Changing Order of Layers, Linking and Aligning Layers, Renaming, Deleting Layer, Color Coding, Rasterizing Layer, Setting Opacity and Blending, Layer Effect and Style, Applying Preset Style, Creating Custom Style, Masking Layer Filters: Using Filter Gallery, Filter Gallery Dialogue box, Applying and Blending Filters, Choosing various Filter Effects

**Reference Books:**

- Adobe PageMaker 7.0 Classroom in a Book, Publisher Adobe
- The Complete Reference Getting started with Page Maker, McGraw-Hill
- Photoshop 6.0 by Sharma, Shusmit
- Photoshop CS6 All-in-One for Dummies by Barbara Obermeier, John Wiley & Sons