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DIPLOMA OF COMPUTER APPLICATION

SEMESTER-1

SUBJECT CODE	SUBJECT NAME	Internal MARKS	External Marks	Total	Credit
1DCA1	FUNDAMENTALS OF COMPUTERS & INFORMATION TECHNOLOGY	25	75	100	4
1DCA2	PC PACKAGES	25	75	100	4
1DCA3	PC PACKAGES Practical	-	25	25	2
1DCA4(A) Or 1DCA4(B)	ELECTIVE – 1 (CHOOSE ONE OF THE FOLLOWING) (A). FOXPRO (B). MS ACCESS	25	75	100	4
1DCA5(A) Or 1DCA5(B)	ELECTIVE1 Practical (A). FOXPRO (Practical) (B). MS ACCESS (Practical)	-	25	25	2
TOTAL		75	275	350	16

SEMESTER-2

SUBJECT CODE	SUBJECT NAME	Internal MARKS	External Marks	Total	Credit
2DCA1	IT-Trade	25	75	100	4
2DCA2	Internet & E-Commerce	25	75	100	4
2DCA3	Internet & E-Commerce (Practical)	-	25	25	2
2DCA4(A) Or 2DCA4(B)	ELECTIVE – 1 (CHOOSE ONE OF THE FOLLOWING) (A) Multi Media and Coral Draw (B) DTP with Page Maker & Photoshop	25	75	100	4
2DCA5(A) Or 2DCA5(B)	ELECTIVE1 Practical (A) Multi Media and Coral Draw (Practical) (B) DTP with Page Maker & Photoshop (Practical)	-	25	25	2
TOTAL		75	275	350	16

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1DCA1 – FUNDAMENTAL OF COMPUTERS AND INFORMATION TECHNOLOGY

UNIT – I

Brief history of development of computers, Computer system concepts, Computer system characteristics, Capabilities and limitations, Types of computers Generations of computers, Personal Computer (PCs) – evolution of PCs, configurations of PCs- Pentium and Newer, PCs specifications and main characteristics. 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, Scanners, Digital Camera, MICR, OCR, OMR, Bar-code 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, Printers& types – Daisy wheel, Dot Matrix, Inkjet, Laser, Line Printer, Plotter, Sound Card and Speakers, Storage fundamentals - Primary Vs Secondary Data Storage and Retrieval methods - Sequential, Direct and Index Sequential, SIMM, Various Storage Devices - Magnetic Tape, Magnetic Disks, Cartridge Tape, Hard Disk Drives, Floppy Disks (Winchester Disk), Optical Disks, CD, VCD, CD-R, CD-RW, Zip Drive, flash drives Video Disk , Blue Ray Disc, SD/MMC Memory cards, Physical structure of floppy & hard disk, drive naming conventions in PC. DVD, DVD-RW.

UNIT – III

Software and its Need, Types of Software - System software, Application software, System Software - Operating System, Utility Program, Programming languages, Assemblers, Compilers and Interpreter, Introduction to operating system for PCs-DOS Windows, Linux, File Allocation Table (FAT & FAT 32), files & directory structure and its naming rules, booting process details of DOS and Windows, DOS system files Programming languages- Machine, Assembly, High Level, 4GL, their merits and demerits Software and its types - Word-processing, Spreadsheet, Presentation Graphics, Data Base Management Software, characteristics, Uses and examples and area of applications of each of them, Virus working principles, Types of viruses, virus detection and prevention, viruses on network.

UNIT – IV

Use of communication and IT , Communication Process, Communication types- Simplex, Half Duplex, Full Duplex, Communication Protocols, Communication Channels - Twisted, Coaxial, Fiber Optic, Serial and Parallel Communication, Modem - Working and characteristics, Types of network Connections - Dialup, Leased Lines, ISDN, DSL, RF, Broad band ,Types of Network - LAN, WAN, MAN ,Internet, VPN etc., Topologies of LAN - Ring, Bus, Star, Mesh and Tree topologies, Components of LAN -Media, NIC, NOS, Bridges, HUB, Routers, Repeater and Gateways.

UNIT-V

Computer Applications in Business-Need and Scope, Computer Applications in Project Management, Computer in Personnel Administration, Information System for Accounting-Cost and Budgetary Control, Marketing and Manufacturing, Computer Applications in Materials Management, Insurance and Stock-broking, Production planning and Control, Purchasing, Banking, Credit and Collection, Warehousing. Use of computers in common public services and e-governance.

TEXT & REFERENCE BOOKS:

1. Anurag Seetha, “Introduction to Computers and Information
2. Technology”, Ram Prasad & Sons, Bhopal.
3. S.K.Basandra, “Computers Today “, Galgotia Publications.
4. Alexis Leon & Mathews Leon, “Fundamentals of Information
5. technology “, Vikas Publishing House, New Delhi.

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1DCA2 - PC PACKAGES

NOTE: -

1. Theory and Practical of this course is based on at least Windows XP and MS Office XP Version, newer versions can also be used for performing practical in Lab.

2. Demonstration of Star Office and OpenOffice must be given in the classroom, comparison can be asked in the theory & practical exam

UNIT–I

Office Packages-Office activities and their software requirement, 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 MSWord; 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, Autoformatting, Printing & various print options

UNIT-II

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.

UNIT – III

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 – IV

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.

UNIT-V

Outlook express: Setup email account with outlook, sending and receiving mail through outlook, concepts of CC and BCC, forwarding mail, Draft messages, formatting e-mail message, Concept of MIME Protocol, attaching files and items into messages, inserting hyperlink using outlook editor creating and using send and receive groupemails, opening received messages, opening messages with attachment, replying to mail forwarding messages flagging for further action, setting email options, managing contacts with outlook, Setting up multiple email accounts on single machine.

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 Publications
4. I.T. Tools and Applications, A. Mansoor, Pragya Publications

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1DCA3-PC PACKAGE (PRACTICAL)

Practical Questions:

Q. Load Microsoft Word & type the following text and do the following tasks:

Television

How does television affect our lives? It can be very helpful to people who carefully choose the shows that they watch. Television can increase our knowledge of the outside world, there are high quality programmes that helps us to understand many fields of study, science, medicine, the arts and so on. Moreover, television benefits very old people, who can't often leave the house as well as patients in hospitals. It also offers non native speakers the advantage of daily informal language practice. They can increase their vocabulary and practice listening.

On the other hand, there are several serious disadvantages of television. Of course, it provides us with a pleasant way to relax and spend our free time, but in some countries, people watch the 'blood tube' for an average of six hours or more a day. Many children stare at a television screen for more hours each day than they do anything else including studying & sleeping. It's clear that the tube has a powerful influence on their lives and that its influence if often negative.

1. Save your work as "Television" on Desktop.
2. Set the heading: Font Times New Roman Size 18, align centre & Bold,
3. Set the remaining text with Font Calibri & size 12
4. Underline the heading & change all letters to uppercase
5. Run the spell checker.
6. Apply indentation to the first line of the second paragraph
7. Change the line spacing of the paragraphs to 1.5.
8. Replace the word "screen" with monitor.
9. Apply a 6pt width page border to the document
10. Change the Page orientation to Landscape

Q. Type the given text in similar format using list in the word:

1. Select the first, then hold CTRL whilst selecting the rest
    - Right click on them
    - Double click on them
    - Use the TAB button
2. How do you get capital letters using just one finger?
    - Use the SHIFT LOCK key
    - Use the TAB key
    - Use the ESCAPE key
    - Use the CTRL key
3. What is the short cut for copying data to the clipboard?
    - CTRL+C
    - CTRL+X
    - CTRL+Z
    - CTRL+V

Q. Create a table as shown below.

Student Name		Marks1	Marks2
First Name	Last Name		

1. Enter the detail in the table
2. Insert one row after Marks 2 and name its heading as Total
3. Calculate total of Marks1 & Marks2 and enter in Total Column
4. Bold the Student Name, Marks1, Marks2, & Total

Q. Type the following text in Hindi using UNICODE:

हँसी शरीर की स्वास्थ्य का बहुत बड़ा संकेतक के रूप में होती है। वह एक साथ ही शरीर और मन को प्रफुल्लित करती है। पाचन क्रिया बढ़ती है, रक्त का प्रवाह तेज़ और अधिक प्रभावी ढंग से होता है। हँसी एक औषधिसदृश दावा है। एक डॉक्टर कहता है कि यह जीवन के मीठे मिज़ाज की निशानी है। डॉक्टर रग्गु कहते हैं कि आनंद से चक्कर मुस्कुराहट उदास मनुष्य के मन और शरीर को कोई औषधि करालता नहीं कर सकती। जब राजकुमार शा संसार त्यागने को गया था तब कहा था – हँसी तो वहीं की होती है जहाँ कोई दुःख नहीं होता। तुम हँसी, तुम्हें अच्छा लगेगा। अपने आप हँसोगे, तब अधिक प्रसन्नता अनुभव करोगे। तुम्हें दुख कम होगा। एक विचार को हँसोगे, उसकी आभा बढ़ेगी। एक कह कर हँसोगे, वह अपने को जान समझने लगेगा। एक बालक को हँसोगे, उसके स्वास्थ्य में वृद्धि होगी वह प्रसन्न और प्यारा बालक बनेगा। यह जीवन का उद्देश्य बेहतर जीवन ही नहीं, एक बहुत अच्छा जीवन है। हँसिए उन कहानियों पर, कटाक्षों में और विचारों में एक सुंदर आत्मिक शक्ति, और प्यारी सृष्टि भगवान ने दी है।

Remaining Questions in English:

Q. Send a letter to your classmates using mail merge.
Q. Write about introduction of computer and insert pictures related to it.
Q. Open Microsoft Excel and perform the following:
• Input experimental data into Microsoft Excel worksheet.
• Properly format and organize data inserted.
• Perform calculations in Microsoft Excel using formulas and various built-in functions.
• Generate simple and effective tables and graphs to describe experimental data in Microsoft Excel.
• Integrate both graphs and tables created in Microsoft Excel into Microsoft Word document.
Q. Present PowerPoint Slides to explain various input devices
Q. Present PowerPoint Slides to explain various output devices
Q. Present PowerPoint Slides to show various tourist places of Madhya Pradesh.
Q. Apply text and slide transitions
Q. Insert image & sound file in Presentation

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1DCA4(A) - FOXPRO

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 operations on data- CREATE, LIST, APPEND, CLOSE, QUIT FoxPro - Data Types VIEWINING 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 - File utilities in FoxPro - DISPLAY DIRECTORY, COPY, DELETE,RENAME.

UNIT-II

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, Rushmore Technology PRINTING REPORTS AND LABELS 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 AND FUNCTIONS Arithmetic Operations, Mathematical Functions, Mathematical Commands, Statistical Functions.

UNIT - IV

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, DocaseEndcase, Text - Endtext, Executing Commands from other command files, Macro Substitution ERROR CONDITIONS AND PROGRAM DEBUGGING AIDS Common Error Massages Debugging techniques and commands

UNIT-V

MULTIPLE DATA FILES Concept of Multiple Database Files - Using multiple database files Relation 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, _SAY_GET_READ, Creating Box & Lines, User Define Functions, Custom Screen Designing and their Use, Fox Doc for documentation

TEXT & REFERENCE BOOKS:

1. Foxpro Made Simple by R.K.Taxali, BPB Publications
2. Mastering Foxpro 2.5 BPB Publications
3. Foxpro 2.6 for Dummies - Pustak Mahal

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1DCA5(A) – FOXPRO (Practical)

Practical Questions:

Q. Create New Database named **"student"** (with relevant data type) and add the following records:

Roll_No	FNAME	SNAME	CITY	COURSE	FEE_DEPOSITED
100	ANIL	VRCE	BHOPAL	DCA	1000.00
101	SUNIL	RANA	DELHI	DCA	500.00
102	MEHUL	KOSHIK	BOMBAY	PGDCA	1500.00
104	MADHURI	CHANDI	PATNA	BCA	1200.00
105	PROMOD	MEHRA	NAGPUR	DCA	2000.00
106	SANDIP	DHEER	NAGPUR	PGDCA	1200.00
107	SHIVANI	VIRAR	SURAT	PGDCA	1000.00
108	KRANTI	NEHRU	DELHI	DCA	500.00
109	MINU	POWAI	BHOPAL	PGDCA	700.00
110	VINOD	SINHA	BHOPAL	BCA	800.00

Perform the following operations on the above database:

- To display all records in the database
- To display records based on some conditions
- To display the structure of the database
- To display Fname and city whose course name is DCA
- To delete current record
- To delete records based on some condition
- To delete all the records in the current database
- To replace all BOMBAY with MUMBAI
- To give details of fname & sname having fees deposited between 1400 and 3000
- Modify the table and add one more field “INSTITUTE_NAME” and fill the data
- Sort/Index with City
- Sort/Index with FNAME & SNAME
- To count the number of records in the database
- To calculate the total fees deposited
- To input records and add them in the database
- Find the name of the student who deposited minimum fees
- To display the sum of fees deposited by all DCA students
- To display the sum of fees deposited in each course
- Add one more column “FINE” in table and insert 50 Rs in each record
- Add one more column “TOTAL” in table and update the table as TOTAL = FEE_DEPOSITED + FINE
- Delete the column “TOTAL”
- Create two tables with attribute of your choice and perform the join operation

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1DCA4(B) -MS ACCESS

UNIT I

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

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 recode and edit text Sort, find/replace, filter/select, re-arrange columns, freeze columns. Edit a Tables- copy, delete, import, modify table structure find replace.

UNIT III

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, field 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 prints report, Creating Reports and Labels, Wizard • Ms Office XP complete BPB publication ISBN 81-7656-564-4

TEXT & REFERENCE BOOKS:

• Ms Access 2002 fast&easy by Faithe Wempen PHI .ISBN 81-203- 1893-5

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1DCA5(B) MS Access (Practical)

Practical Questions:

Q. Create New Database named **"student"** (with relevant data type) and add the following records:

Roll_No	FNAME	SNAME	CITY	COURSE	FEE_DEPOSITED
100	ANIL	VRCE	BHOPAL	DCA	1000.00
101	SUNIL	RANA	DELHI	DCA	500.00
102	MEHUL	KOSHIK	BOMBAY	PGDCA	1500.00
104	MADHURI	CHANDI	PATNA	BCA	1200.00
105	PROMOD	MEHRA	NAGPUR	DCA	2000.00
106	SANDIP	DHEER	NAGPUR	PGDCA	1200.00
107	SHIVANI	VIRAR	SURAT	PGDCA	1000.00
108	KRANTI	NEHRU	DELHI	DCA	500.00
109	MINU	POWAI	BHOPAL	PGDCA	700.00
110	VINOD	SINHA	BHOPAL	BCA	800.00

Perform the following operations on the above database:

- To display all records in the database
- To display records based on some conditions
- To display the structure of the database
- To display Fname and city whose course name is DCA
- To delete current record
- To delete records based on some condition
- To delete all the records in the current database
- To replace all BOMBAY with MUMBAI
- To give details of fname & sname having fees deposited between 1400 and 3000
- Modify the table and add one more field “INSTITUTE_NAME” and fill the data
- Sort/Index with City
- Sort/Index with FNAME & SNAME
- To count the number of records in the database
- To calculate the total fees deposited
- To input records and add them in the database
- Find the name of the student who deposited minimum fees
- To display the sum of fees deposited by all DCA students
- To display the sum of fees deposited in each course
- Add one more column “FINE” in table and insert 50 Rs in each record
- Add one more column “TOTAL” in table and update the table as TOTAL = FEE_DEPOSITED + FINE
- Delete the column “TOTAL”
- Create two tables with attribute of your choice and perform the join operation

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2DCA1 IT-Trade

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, MPoline 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, 5G, 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 on Computers and Communication
- Multimedia: Making It Work (4th Edition) By Tay Vaughan, Tata McGraw Hills
- Multimedia in Action James E Shuman, Vikas Publishing House

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2DCA2 Internet & 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/Aadhaar Card online, Pay electricity bill and service tax online, Booking gas refill online, Downloading eBooks, Create & Using Bookmarks,

Using JustDial/quirk.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, onUnload, Alerts, Prompts & Confirms.

UNIT-V

Introduction to E-Commerce, 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, Bhim, 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*
- **A Beginner's 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

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2DCA3 INTERNET AND E-COMMERCE (Practical)

Practical Questions:

Q1. How to link an image to another page in HTML.
Q2. How to create a link that opens a new web page window or tab.
Q3. How to create links to sections on the same page in HTML.
Q4. Creating images as links with no borders.
Q5. Creating a link without an underline in HTML.
Q6. Changing link color when moving mouse over link in HTML.
Q7. Creating a link to play a sound file in HTML.
Q8. How to create a link that goes to top of a web page.
Q9. Creating HTML push button link and creating an HTML back button.
Q10. How to create a link to automatically run .exe file once downloaded.
Q11. Creating a mail link on a web page.

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DIPLOMA OF COMPUTER APPLICATION

2DCA4(A) Multimedia with Coral Draw

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

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DIPLOMA OF COMPUTER APPLICATION

2DCA5(A) Multimedia with Coral Draw (Practical)

Q. Refer the following points and design a **Birthday Party invitation card**. Invitation Card should contain the following:

- Size of card – 4.5 × 6.25 or 5 × 7 inches
- Invitation Matter (Hindi or English)
- Name of Birthday Boy/Girl (Hindi or English)
- Venue name & address (Hindi or English)
- Date of Birthday Party
- Host Name & address
- Card Template and color should match with mood of occasion

Q. Design a **cover page for a book** on *"Human Behavior"*. Book Cover should include the following:

- Name of Book
- A picture or graphics related to theme
- Name of author (Dr. XYZ Kumar)
- Name of Publisher and logo (Any publisher of your choice)
- Price of the book
- Cover page of Book – 6 × 9 inches
- Insert pictures and graphics according to theme

Q. Design a **Newspaper front page**. The front page should include the following points:

- Masthead (newspaper name and logo)
- Price and Date
- Lead of story headline
- Inside stories
- Lead Story Write up
- Your front-page Picture
- May include an advertisement.
- Front page of newspaper size-16.5*23.4 inches.
- Insert pictures and graphics according to news.

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DIPLOMA OF COMPUTER APPLICATION

2DCA4(B) DTP with Page Maker & Photoshop

UNIT–I

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 & Colours, 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, Mathematical Equation, Table Editor and it is use, Master Pages, Headers & Footers, Frame Options, Print Setup options, Managing and Printing Publications – Titles, multiple copies etc. Use of Page Maker in Newspaper and Magazines

UNIT–IV

Introduction to Adobe Photoshop, Photoshop Documents, Various Graphic Files and Extensions: JPG, GIF, PNG, TIFF, BMP, PSD, PDF, 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

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DIPLOMA OF COMPUTER APPLICATION

2DCA5(B) DTP with Page Maker & Photoshop

Practical Questions:

Q. Prepare passport size photographs to print on A4 Sheet.

- Passport photograph size – 35 × 45 mm
- Select a photograph and resize it to 35 × 45 mm in passport size photograph style.
- Change the background of photo to plain background.
- Insert name and date on photograph.
- Place 20 photographs in a 4 × 5 pattern to print them on a A4 Sheet.

Q. Colorize a black and white photograph to color.

- Select any black white (old) photograph of your parents or relatives.
- Scan this photograph.
- Colorize the photograph with your imagination.
- Try to match skin tone hair color.
- Try to colorize dress and environment as real as possible.
- Finally save the new image in jpeg format.

Q. Refer the following points and Design a Visiting Card based on following points:

- Design a visiting card for Somesh Kumar who is a managing director of BigTech Pvt. Ltd.
- Company works in the field of software development.
- Visiting card should contain mobile no. 7899—9889-987.
- Visiting card should contain office address - Zone II, M.P. Nagar, Bhopal.
- Visiting card size should 3.5 x 2 inches.
- Cards theme and colour should match the company's work profile.
- Try to prepare at least 3 variations for visiting card.