

## DETAILED SYLLABUS

### POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS (PGDCA)



**Department of Computer Applications & Science**

**Makhanlal Chaturvedi National University of  
Journalism and Communication, Bhopal**

**B-38 Vikas Bhawan, Opp Dak Bhawan, Press  
Complex, Zone-1 M.P. Nagar, Bhopal – 462011  
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**Post Graduate Diploma in Computer Applications (PGDCA) SEMESTER – I**

S. No.	Paper Numerical Unique	Class & Papers	Paper Name/Subject	Theory paper		Practical Exams		Internal Evaluation		Total
				Max.	Min.	Max.	Min.	Max.	Min.	
1.	7617	1PGDCA1	Fundamentals of Computers & Information Technology	80	32	-	-	20	08	100
2.	7618	1PGDCA2	PC Packages (Word, Excel, Powerpoint)	50	20	30	12	20	08	100
<b>Elective-I</b>										
3.	7619	1PGDCA3 (A)	Database Using MySQL	50	20	30	12	20	08	100
4.	7620	1PGDCA3 (B)	Database Using MS-Access	50	20	30	12	20	08	100
<b>Elective-II</b>										
5.	7621	1PGDCA4 (A)	Fundamentals of Multimedia	50	20	30	12	20	08	100
6.	7622	1PGDCA4 (B)	Programming with VB .Net	50	20	30	12	20	08	100

**Post Graduate Diploma in Computer Applications (PGDCA) SEMESTER – II**

S. No.	Paper Numerical Unique	Class & Papers	Paper Name/Subject	Theory paper		Practical Exams		Internal Evaluation		Total
				Max.	Min.	Max.	Min.	Max.	Min.	
1.	7715	2PGDCA1	IT Trends & Technologies	80	32	-	-	20	08	100
2.	7716	2PGDCA2	Internet and Web Designing	50	20	30	12	20	08	100
<b>Elective-I</b>										
3.	7717	2PGDCA3 (A)	DTP with Page Maker & Photoshop	50	20	30	12	20	08	100
4.	7718	2PGDCA3 (B)	Financial Accounting with Tally	50	20	30	12	20	08	100
<b>Elective-II</b>										
5.	7719	2PGDCA4 (A)	Multimedia with Corel Draw, Premier & Sound Forge	50	20	30	12	20	08	100
6.	7720	2PGDCA4 (B)	Programming with ASP .Net	50	20	30	12	20	08	100

**SCHEME FOR  
POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS (PGDCA)**

**SEMESTER -I**

Subject Code	Subject Name	Scheme		Theory Paper	Practical Exams	Internal Evaluation	Total Marks	
		L	P					
1PGDCA1	Fundamentals of Computers & Information Technology	4		80		20	100	
1PGDCA2	PC Packages (Word, Excel, PowerPoint)	3	1	50	30	20	100	
1PGDCA3(A) <b>OR</b>	<b>Elective-I</b> Database Using MySQL	3	1	50	30	20	100	
1PGDCA3(B)	Database Using MS-Access	3	1	50	30	20	100	
1PGDCA4(A) <b>OR</b>	<b>Elective-II</b> Fundamentals of Multimedia	3	1	50	30	20	100	
1PGDCA4(B)	Programming with VB.Net	3	1	50	30	20	100	
<b>Total</b>								<b>400</b>

(L - Lecture, P-Practical)

**SEMESTER -II**

Subject Code	Subject Name	Scheme		Theory Paper	Practical Exams	Internal Evaluation	Total Marks	
		L	P					
2PGDCA1	IT Trends & Technologies	4		80		20	100	
2PGDCA2	Internet and Web Designing	3	1	50	30	20	100	
2PGDCA3(A) <b>OR</b>	<b>Elective III</b> DTP With Page Maker & Photoshop	3	1	50	30	20	100	
2PGDCA3(B)	Financial Accounting with Tally	3	1	50	30	20	100	
2PGDCA4(A) <b>OR</b>	<b>Elective-IV</b> Multimedia With Corel Draw, Premier & Sound Forge	3	1	50	30	20	100	
2PGDCA4(B)	Programming with ASP.Net	3	1	50	30	20	100	
<b>Total</b>								<b>400</b>

**General Instructions:**

1. For passing the subject examination minimum 40% marks must be separately scored in Theory Paper, Practical Exams and Internal Evaluation in the subject.
2. For passing the semester, minimum aggregate marks must be 45% in the semester.

*M. Maheshwari*  
Principal  
PGDCA

*Jan*

*1977*

Prof. C. P. Agrawal

## SEMESTER-I

### 1PGDCA1 - FUNDAMENTALS OF COMPUTERS & INFORMATION TECHNOLOGY

#### UNIT-I

Computer System Concepts, Application area, advantage & disadvantage, Components of a computer system - Control unit, ALU, Input/Output, Memory, Mother Board, Generations of computers, Configurations of Computer system, Types of PCs- Desktop, Laptop, Notebook, Palmtop, PDA, Special Purpose computers, Supercomputers Characteristics and area of Uses, Primary Vs Secondary Memory, RAM, ROM, EPROM, PROM.

Various Storage Devices- Magnetic Disks, Hard Disk Drives, Floppy, Disks, Zip Drive, Optical Disks, CD, VCD, CD-R, CD-RW, DVD, DVD-RW, Blue Ray Disc, flash drives SD/MMC Memory cards, Solid-State Drive (SSD).

#### 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

Software and Its Need, Types of Software- System Software, Application Software, System Software- Operating System- definition & function, Device Drivers & Utility Programs, Introduction & Features of DOS, Windows. Programming Languages- Machine, Assembly, High Level, 4GL, their Merits and Demerits, Uses of Assemblers, Compilers and Interpreter.

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 etc.

Computer coding system-ASCII, ISCII and Unicode, Number system of computer- Binary, Octal, Decimal, Hexadecimal their conversion.

#### UNIT-IV

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, Broad band uses, advantages & disadvantages.

*M. Maheshwari*  
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Types of Network- LAN, WAN, MAN, Internet, VPN etc., 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

#### UNIT-V

Disk Operating System (DOS): Introduction, DOS Basics - 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, External- TREE, FORMAT, SORT, FDISK, MODE, ATTRIB, HELP, SYS etc., Concepts of Free/Open Source and proprietary software, applications and use of computer in various fields.

LINUX: History & Features, Hardware Requirements of Linux, Various flavors of Linux, Linux Standard Directories, Functions of Profile and Login Files in Linux, Linux Kernel, 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, who, whois.

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#### Reference Books:

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- 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.

M. K. Maheshwari  
विभागाध्यक्ष  
कम्प्यूटर अनुप्रयोग विभाग

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## SEMESTER-I

### 1PGDCA2 - 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, 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 programmes and fonts, Enhance the performance of computer- using Disk Clean-up, using Disk Defragmenter, Using Windows Update, Protecting your computer against viruses.

Using Internet in Windows: Basic Operations using Internet Browser-Working with browsers, Know about WWW, URL, Search Engines, Searching information on Wikipedia, Subscribing and reading newspapers online, Typing text in the regional language, 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.

#### UNIT-II

Modern office activities and their software requirements, Introduction to Office Automation Suit, Elements of office suit & area of use. Word-processing, Spreadsheet, Presentation graphics, Database, Introduction and comparison of various office suites like Apache OpenOffice, Libre Office, Calligra Suite, WPS office, KOffice, Google Docs & Microsoft office.

MS Word Basics: Introduction to MS Office (2013), Introduction to MS Word, Features & area of use. Various versions of MS Office and their requirements, 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, Spell Check Working with Headers and Footers.

Tables: Creating a simple table, Creating a table using the table menu, Entering and editing text in a table, selecting in table, adding rows, changing row heights, Deleting rows, Inserting columns, Deleting columns, changing column width, conversion to and from text.

#### 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

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footnote and endnote in documents, creating automatic Table of Contents, Using Themes, Watermarks, Inserting Equations & Symbols.

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. Templates: Template types, using templates, exploring templates, modifying templates.

Mail Merge in MS Word, Mail Merge concept, Envelops & Mailing Labels, Importing and exporting to and from various formats, Macros in MS Word: Macro introduction and their use, recording macros, editing macros, running a macro.

#### **UNIT-IV**

MS Excel Spreadsheet Basics & features, concepts of Workbook & Worksheets, Getting started, Creating a new worksheet, Using Wizards, Various Data Types, Selecting cells, Entering and editing text, Entering and editing 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 parts of a worksheet, clearing parts of a worksheet, Different Views of Worksheets.

Formatting: Page setup, Cell Formatting, changing column widths and Row heights, auto format, changing font sizes and Attributes, centering text across columns, using border buttons and Commands, changing colors and shading, hiding rows and columns, Working with Data & Ranges, Column Freezing, Labels, Hiding, Splitting, merging etc.

Charts: Chart parts and terminology, chart wizard, different types of charts, printing charts, deleting charts, linking in spreadsheet, 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, shapes, screenshots, Smart Art and charts in presentation, Sounds and Movies to a Slide; Working with PowerPoint Objects, Designing & Presentation of a 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 option, Slide Master, Handout Master and Notes Master.

Outlook Express: Features and uses, Configuration and using Outlook Express for accessing emails in office, Add e-mail accounts to Outlook, Create emails, send and receive emails in outlook.

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#### **Reference Books:**

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- 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/)

*M. K. Maheshwari*  
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- 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, Faith 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

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### **Practical Questions:**

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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 programmers 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 is 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.

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 10/11/2013  
 10/11/2013

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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 के स्वास्थ्य का शुभ सवांद देने वाली है। वह एक साथ ही शरीर और मन को प्रसन्न करती है। पाचन शक्ति बढ़ाती है, रक्त को चलती है और अधिक पसीना लाती है। हँसी एक शक्तिशाली दवा है। एक डॉक्टर कहता है कि वह जीवन कि मीठी मदिरा है। डॉक्टर ह्युड कहता है कि आनंद से बढ़कर बहुमूल्य वस्तु मनुष्य के पास और कोई नहीं। कारलाइल एक राजकुमार था। संसार त्यागी हो गया था वह कहता है कि जो जी से हँसता है, वह कभी बुरा नहीं होता। जी से हँसो, तुम्हे अच्छा लगेगा। अपने मित्र को हँसाओ, अव अधिक प्रसन्न होगा। शत्रु को हँसाओ, तुम से कम घर्णा करेगा। एक अनजान को हँसाओ, तुम पर भरोसा करेगा। उदास को हँसाओ, उसका दुःख घटेगा। एक निराश को हँसाओ, उसकी आशा बढेगी। एक बूढे को हँसाओ, वह अपने को जवान समझने लगेगा। एक बालक को हँसाओ, उसके

*M. Maheshwari*  
 10/11/2014  
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*[Signature]*

स्वास्थ्य में वृद्धि होगी। वह प्रसन्न और प्यारा बालक बनेगा। पर हमारे जीवन का उद्देश्य केवल हँसी ही नहीं है, हमको बहुत काम करने हैं। तथापि उन कामों में, कष्टों में और चिंताओं में एक सुंदर आंतरिक हँसी, बड़ी प्यारी वस्तु भगवान ने दी है।

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 Power Point Slides to explain various input devices

Q. Present Power Point Slides to explain various output devices

Q. Present Power Point 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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## SEMESTER-I

### 1PGDCA3(A) - DATABASE USING MYSQL

#### (ELECTIVE-I)

##### UNIT-I

Introduction to database concept , Need of database, Flat Database, Database Management System, Characteristics of DBMS ,Relational Database, Entity and Referential Integrity, Database Concept of primary key, Database Application Example, Banking, Railways, School, Retail Store. Database Elements - Tables, Query, Form, Report, Introduction to Client Server paradigm

##### UNIT-II

My SQL Database, Its Features, Installation on Windows, Making it works on Command Line, Using the Built in Database, Running and Shutting down MySQL Server, Setting up MySql user account. CREATE and DROP database, Important Administrative Mysql database commands- SHOW DATABASE, USE DATABASE, SHOW TABLES, SHOW COLUMN, and SHOW INDEX

##### UNIT-III

Database Query Commands DDL, DML, DCL, Creating Tables Using SQL Commands, Using various Data Types, Applying constraints on Tables, Updating, Deleting MySQL Tables, Inserting Data, Updating and Deleting Data - Retrieving Data From a MySQL Database- Sorting Data Retrieved from a MySQL Database- Using WHERE to Filter data. SQL Functions and Operators Control flow function, String Function, Numerical Function

##### UNIT-IV

Data- Advanced MySQL Data Filtering- AND, OR, NOT and IN- MySQL Wildcard Filtering using LIKE- MySQL Regular Expression Searches - Joining Tables in MySQL, Applying Grouping of data by Group By, MySQL Data Aggregation Functions- MySQL Users and Security- Administering and Monitoring MySQL using the MySQL Commands.

##### UNIT-V

Example Applications for My Sql database- Workbench and PhpMyAdmin, Graphical user Interface of PHP MyAdmin, PHPMyAdmin Features, Installation, Use of different section of PhpMyAdmin, Managing database with PHP MyAdmin, Browse, Structure, Search, Insert, Empty, Drop, Create new tables and add data, Execute MySQL query with sql tab.

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##### Reference Books:

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- A Guide to MySQL Philip J Pratt
- Learning MySQL Seyed MM Tahaghghi O'Reilly Publications
- <https://dev.mysql.com/doc/refman/5.6/en/>
- <https://www.analysisandsolutions.com/code/mysql-tutorial.htm>

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### Practical Questions:

Q. Create New Database name "student" (with relevant data type) and add 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	PRMOD	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 operation on 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 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

M. Maheshwari

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## SEMESTER-I

### 1PGDCA3(B) - DATABASE USING MS ACCESS

#### (ELECTIVE-I)

##### 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

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, 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.

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##### Reference Books:

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- MS Office XP complete BPB publication ISBN 8 1-7656-564-4.
- MS Access fast & easy by faithe wempen PHI.

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### Practical Questions:

Q. Create New Database name "student" (with relevant data type) and add 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	PRMOD	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 operation on 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 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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## SEMESTER-I

### 1PGDCA4(A) – FUNDAMENTALS OF MULTIMEDIA

#### (ELECTIVE-II)

##### UNIT - I

Introduction to Multimedia, Multimedia Definition and concept, Need of Multimedia, Areas of use, Development platforms for multimedia, Identifying Multimedia elements Text, Images, Sound, Animation and Video, Multimedia Hardware and Software requirement. Making simple Multimedia with Power Point Text as a component of Multimedia, Concepts of plain & formatted text, RTF & HTML texts, Object Linking and Embedding concept, Fonts- need & types

##### UNIT-II

Sound in Multimedia, Importance of sound in Multimedia, Sound and its Attributes – tone, intensity, frequency, wavelength, pitch etc. Mono V/S Stereo Sound, Sound Channels, 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, 3D sound

##### UNIT -III

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-IV

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 -V

Application of Multimedia and its Future, Application of multimedia in different industries- Education, Entertainment, Journalism etc., Future of Multimedia, Career in Multimedia Production, Virtual Reality as new technology in multimedia, Applications of VR, Introduction to HMD, Boom cave, Introduction to various types of Authoring Tools

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##### Reference Books:

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- Multimedia: Making It Work (4th Edition) By Thyvaughan, Tata Mcgraw Hills.
- Multimedia In Action James E Shuman Vikas Publishing House.
- Multimedia Basics Volume / Technology, Andreas
- Hoi Zinger, Firewall Media (Laxmi Publications Pvt. Lid) New Delhi.
- Multimedia on the PC by IANR Sinclair, BPB Publisher

## SEMESTER-I

### 1PGDCA4(B) – PROGRAMMING WITH VB .NET

#### (ELECTIVE-II)

##### UNIT-I

Object Oriented Programming Language – Object Oriented Programming Concepts, Object Oriented Programming Compared to Traditional Programming Objects, Messages, Methods and Classes. Control Structures, Inheritance and Polymorphism, Advantages, Usage. Program development environment

##### UNIT-II

Introduction to .NET, .NET Framework features & architecture, CLR, Common Type System, MSIL, Introduction to visual studio, Visual BASIC, visual development & event drive Programming, Methods and events, Variables, Data Type of variables, Classes & Objects, simple projects in VB.NET, constructor, inheritance, Access Specifiers, Overloading

##### UNIT-III

Scope & lifetime of a variable, Arrays, Collections, Subroutines, Functions, Control flow statements: conditional statement, loop statement. MsgBox & Input box. Forms: Loading, showing and hiding forms, Methods and events, GUI Programming with Windows Form, Textbox, Label, Button, simple projects in VB.NET using these controls

##### UNIT-IV

More advanced tools, Listbox, Combobox, Checkbox, PictureBox, Radio Button, Panel, scroll bar, Timer, Dialog boxes, Designing menus, Advanced projects in VB.NET using these controls

##### UNIT-V

Database programming with ADO.NET Accessing Data using Server Explorer, Creating Connection, Accessing Data using Data Adapters and Datasets, using Command & Data Reader, data bind Controls, displaying data in data grid. Processing Access Database using ADO.NET Object model, Connection object, Command object, Add, delete, move & update records to dataset. Projects in VB.NET using database

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#### **Reference Books (Based on Visual Studio 2010 or Above):**

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- Vb.Net Programming Black Book By Steven Holzner Dreamtech Publications
- Mastering Vb.Net By Evangelos Pet Routsos - Bpb Publications
- Introduction To .Net Framework -Worx Publication MSDN. Microsoft.Com/ Net Www.Gotdotnet. Com
- Vb.Net Black Book By Steven Holzner Dreamiech

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### **Practical list for VB .NET Programming:**

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VB.Net: Practical's list for submission.

- Design the digital watch using Timer Control.
- Write a program for Book Issue module of Library Management System.
- Write a program to input marks of 3 subject ENGLISH, HINDI, and MATHS as input on console. Display total marks, percentage and find the subject in which lowest marks is obtained.
- Design the following form. So that when user selects and clicks the arrow button it performs the required result.
- Write a program for performing the functions of a Simple & Scientific Calculator.
- Write a VB.NET program to accept any character from keyboard and display whether it is vowel or not.
- Write a Program to Add, Subtract, Multiply and Divide any two numbers by using Input and Message box.
- Design the following form. So that when user clicks on Radio Button then select appropriate check box.
- Write a program to find smallest number using array.
- Write a Program using a list box and combo box.
- Create one Text Box and one Button. When you click Button, Text Box will show "HELLO WORLD".
- Design the following Tic-tac-toe game:
- Write an application to swap any two elements of array. Take index numbers of both as input.
- Design the following Login Form and make it functional
- Write a program for creating a new Word Editor.
- Write a Program to Add, Subtract, Multiply and Divide any two numbers by using Input and Message box.
- Write a Program to print any number table with standard format.
- Write a program to display first 10 even numbers and add them using five formats of looping.
- Create a program for launch of a rocket on the screen.
- Design a Calculator Window Application that will take two numbers and will perform add, subtract, multiply and division operation.

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## SEMESTER-II

### 2PGDCA1 – IT TRENDS & TECHNOLOGIES

#### UNIT-I

E-governance, e-democracy, Government efforts to encourage citizen participation, PPP model, E-governance websites & services, MPONLINE services, UIDI & Aadhar, E-governance mobile apps like UMANG, Digital Locker, Digital Library.

Introduction to cyber crime, types of attacks like spyware, malware, spam mail, logic bombs, denial of service, types of cyber crime like email fraud, phishing, spoofing, hacking, identity theft.

#### UNIT-II

E-Commerce- introductions, concepts, Advantages and Disadvantages, technology in E- Commerce, Benefits and impact of e-commerce

Electronic Payment Systems: Introduction, Types of Electronic Payment Systems, RTGS, IMPS, NEFT, Payment gateway, debit & credit card, internet banking, mobile wallet, UPI, BHIM, PAYTM app, online shopping, online marketing

#### UNIT-III

Introduction to wireless communication, Blue tooth, WiFi, WiMax, LiFi, Mobile technology, 2G, 3G, 4G, 5G 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-IV

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 play store, Apple store,

IOT- Introduction, Application & use

Big data- Introduction, Application & use

#### UNIT-V

Introduction to MIS, System Development Life Cycle, Various phases of system development, Considerations for system planning, Initial Investigation, Determining Users Requirements and Analysis, Fact Finding Process and Techniques, Data Analysis, data Dictionary, decision table, decision tree & form design process.

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#### Reference Books:

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- Fundamentals Of Information Technology By Alex Leon & Mleon, Vikas Publications.

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- Frontiers Of Electronic Commerce, By- Kalakota, Ravi; Stone, Tom.
- E-Commerce An Indian Perspective (Second Edition) By Pt Joseph, S.J. Prentice-Hall Of India.
- Recent Magazines of Computers And Communication.
- System Analysis & Design by V K Jam, Dreamtech Press.
- Modern System Analysis & Design by A Hoffer, F George, S Valaciah, Low Priced Edn. Pearson Education.
- Information Technology & Computer Applications by V K. Kapoor, Sultan Chand & Sons, New Delhi.

MK Meleshwari

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## SEMESTER-II

### 2PGDCA2 – INTERNET AND WEB DESIGNING

#### UNIT-I

Introduction to Internet - Internet Evolution & Concept, Internet Vs Intranet, Growth of Internet, Internet Service Provider (ISP) & its Function, Connectivity- Dialup, Leased line, VSAT , URLs, Portals, Internet Services, Applications. E-MAIL- Basics of Sending & Receiving, Free Email services, Internet chatting - Voice chat, Text chat, World Wide Web (www)- History, Working, Web Browsers & its functions, Concept of Search Engines, Searching the Web, HTTP, URLs, Web Servers, Web Protocols, Networks layers & TCP/IP protocols, The Advantages and Disadvantages of Internet and World Wide Web

#### UNIT-II

HTML- Concepts of Hypertext, Versions of HTML, Elements of HTML, Syntax, Tags & Attributes, Head & Body Sections, Building, HTML Documents. Inserting Texts, Images, Hyperlinks, Backgrounds And Color Controls, Different HTML Tags, Table Layout and Presentation, Creating Lists, Use of Font Size & Attributes, List Types and Its Tags, Use of Frames and Forms in Web Pages, Creating Frameset, Opening pages into frames, Design Forms Contro

#### UNIT-III

Cascading Style Sheet (CSS) – Introduction, creating style , using inline and external CSS, Creating Divs with ID style, creating Tag & Class style using font family, size and colors, creating borders, Navigation links, creating effects with CSS, 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-IV

Designing Websites with **Expression Web**– Introduction to WYSIWG HTML editor, advantages of using HTML editors, Creating a new site, Creating a new Page, Inserting and formatting text, Creating & Inserting Images, Adjusting Transparency settings, Adding Images with alternative Text, Aligning images, creating Email Link, Linking to other websites, Testing and targeting Links, Organizing files & folders, Designing Accessible Tables, styling a table, Editing table layouts, Adding style to a table using CSS

#### UNIT-V

**Word Press**- What is Word Press, Installation, Login, overview of admin panel, user profile, Word Press Themes, Themes depository, Create & add a new logo, Set up a static home page, Create Posts, Delete pages, Create Menu, Add a post, Delete a post, Add Widgets, Upload images, Add Images To a post, Insert and Format Text, Add a Hyperlink to an image, Add a Hyperlink to some text, Protocols- meaning, different web protocols- FTP, DNS, TCP, UDP, HTTP, IP Telnet Concept, FTP Commands - viewing Files and directories, Transfer and rename files, FTP with Filezilla & CuteFTP, Web Hosting – Concept, Introduction to Domain Name & DNS, procedure to register a Domain Name, Procedure for web hosting, Space on Host Server for Website.

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**Reference Books:**

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- 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. Esentice-Hall Of India
- Internet For Everyone - Alexis Leon And Mathews Leon, Vikas Publishing House Pvt. Ltd., New Delhi
- WordPress Made Super Simple - How Anyone Can Build A Professional Looking Website, by Jack Davies and Sarah Wiley
- Internet For Dummies - Pustak Mahal, New Delhi
- A Beginners Guide To Html Available At:[Http://www.Ncsa.Uiuc.Edu /General/Internet /Wwwlhtmlprimerall. Html](http://www.ncsa.uiuc.edu/General/Internet/Wwwlhtmlprimerall.html)
- Introduction To Javascript Available At - [Www. Mcu. Ac. In/Javascriptguide.Pdf](http://www.mcu.ac.in/javascriptguide.pdf)
- How To Create A Website Using Wordpress: The Beginner's Blueprint for Building a Professional Website in 3 Easy Steps Kindle eBook , by Brian Patrick
- Wordpress for Beginners 2017: A Visual Step-by-Step Guide to Mastering Wordpress Kindle eBook by Dr. Andy Williams

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**Practical Questions:**

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- 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
- Q12. Explain how you can make your site live in Expression Web and word press?
- Q13. How you can perform validation in Expression Web and word press?
- Q14. How you can create a mailto form in Expression Web and word press?

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- Q15. How you can add an image to your web page in Expression Web and word press?
- Q16. Design a website for your university using Expression Web and word press?
- Q17. Design a website for university e-library using Expression Web and word press?
- Q18. Design a website for MP Tourism and booking using Expression Web and word press?
- Q19. Design a website for online exam using Expression Web and word press?
- Q20. Design a website for E-ticketing system using Expression Web and word press?

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## SEMESTER-II

### 2PGDCA3(A) – DTP WITH PAGE MAKER & PHOTOSHOP

#### (ELECTIVE-III)

##### Unit-I

Introduction to Desk Top Publishing (DTP), Photocomposing Machines & DTP, Definition, Need and Area of Application. Use of DTP in Offset Printing & Web Designing, Use of Desk Top Publishing in Publications, Importance of D.T.P in Publication, Advantage of D.T.P in Publication, Page Layout & Designing in a single page production. Laser printers - Use, Types, Advantage of laser printer in publication

Difference between a word processor and Publication Software, Use and importance of DTP in Publication & Newspaper Printing, Various DTP Softwares and its application area

Introduction to Offset Printing Technology, Printers, Formatting of a text: Typography, Fonts, Point Size, Spacing, Breaks, Measurements etc. DTP & Page Layout Designing

Types of Printing: Lithography, Flexography, Gravure, Screen Printing, Offset Printing. Print Media & Offset Printing. Terms used in Offset Printing: Bleed, CMYK, Transparent Printouts - Bromide & Film. Halftone, Impression, Saddle Stitch, Perfect Bind, Negative & Positives for Plate were making

##### Unit-II

Introduction to Adobe Page Maker 7.0, Aldus & Adobe Page Maker, Previous and current versions of Page Maker, Page Maker as a DTP Software, Difference between a Page Maker & Word Processing Software

Attribute settings: Tools, Styles, Menus, Templates, Alignments, Grids, Guides etc. Keyboard shortcuts, Templates & its use

Page Layouts- Margins and Page Orientations with various page sizes, Text Editing and Manipulation, Magazine & News Paper Page Layouts

Filters, Import and Export options, Placing of Text and Images, Auto flow and Story Editor, Different Layout views, Control Palatte, Layers & its use

Tab setting, Columns & Gutters, Use of Styles, Palettes & Colors, Import & Export of files, Document Setup & Preferences. Master Pages and its use

##### Unit-III

Adobe Page Maker-Page and document setup, working with rulers, setting the unit measurement, Bullets, Column Balancing, Breaks Arrange, Fill & Stroke Options. Text Wrapping, Widows & Orphan lines, Revert Command and its use, Using Drop Caps and various style formats, Editing of Graphics and Frames. Defining Styles

OLE & Embedding, Plugins, Mathematic Equation, Table Editor and it use. Polygon Setting & Rounded Corners

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Master Pages, Headers & Footers, Frame Options, View Menu Options, Print Setup Options. Paste Multiple & Paste Special.

Managing and Printing Publications – Tiles, multiple copies etc. Use of Page Maker in News paper and Magazines, Various Page Layout Designing Practical's

#### **Unit-IV**

Introduction to Adobe Photoshop, Photoshop Documents, Various Graphic Files and Extensions- JPG, GIF, PNG, TIF, BMP, PSD, CDR, SVG etc., The Photoshop Environment

Graphic Files: Vector Image and Raster Images. Definition, Features, Area of application etc., Advantages and Disadvantages Vector & Raster Graphics, Bitmap Graphics and its qualities

Pixels, Application Programs to work on Vector Graphics and Raster Graphics. Color Modes and Color Models: HSB, RGB, CMYK, Bitmap, Gray Scale, Duotone. Color Mode Conversion

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, Basic Image Manipulations, Photoshop Layers & Palettes: Use of Layers, Creating using layer, Using layer palette,

Working with layered Image: Layer and Layer sets, Selecting Layers, Displaying Content of a Layer, Duplicating Layers, Changing Order of Layers, Renaming & Deleting Layers

Filters: Using Filter Gallery, Filter Gallery Dialogue box, Applying and Blending Filters, Choosing various Filter Effects, Masking Tools & Effects, Using Channels.

Introduction to InDesign, Interfaces, Commands & options, inserting text & images, news paper & magazine page designing in InDesign

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#### **Reference Books:**

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- Adobe Photoshop 7 by Bpb PUBLISHING
- Adobe Premier Pro Class room in a book, the official training workbook, Adobe at [ptgmedia.pearsoncmg.com](http://ptgmedia.pearsoncmg.com)
- InDesign CS6 in Simple Steps by Kogent Learning Solutions Inc. and Dreamtech Press

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### **Practical Questions:**

- Q. Refer the following points and Design a logo for an organization/company
- Company name is Horizon Communication Ltd. with
  - Design a Logo of a company/organization with tag line – Be connected.
  - You can use symbols which show horizon.
  - Company deals in building networks.
  - Company works for customers in Bhopal only.
  - Company wants to target government and private organizations both.
  - Company wants a coloured logo not black and white.
  - Prepare at least 3 variations of logo.
- Q. Refer the following points and Design a Visiting Card based on following points:
- Design a visiting card for Dinesh Kumar Ahuja who is a managing director of Softech Pvt. Ltd.
  - Company works in the field of web development.
  - Visiting card should contain mobile no. 998—989-9898.
  - Visiting card should contain office address E-3/333 Arera Colony, 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 4 variations for visiting card.
- Q. Prepare passport size photographs to print on A4 Sheet.
- Passport photograph size – 35 x 45 mm
  - Select a photograph and resize it to 35 x 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 x 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.

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## SEMESTER-II

### 2PGDCA3(B) – FINANCIAL ACCOUNTING WITH TALLY

#### (ELECTIVE-III)

##### UNIT-I

Basic Concepts of Accounting, Financial Statements, Financial Statement Analysis, Cost Centre, Basic concepts of Inventory, 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

Create, Alter & Display Groups and Ledgers, All accounting voucher types, Accounting Voucher transactions, Account Invoice transactions, Excise Invoice, Export Invoice, Transactions using Bill-wise details.

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.

Create, Alter & Delete Budgets for groups, ledgers & cost centre, Defining credit limit & credit period, Display Budgets & variances, Create, Alter & Delete a scenario. Journal Transactions, payment voucher, Go down summary

##### UNIT-III

Reports like balance sheet, Profit & Loss account, Ratio analysis Trial Balance. Accounts books like cash/bank book, All Ledgers Group summary & vouchers, Sales, purchase & journal registers.

Cost centre & category summary, Cost centre breakup ledger & group breakup, outstanding receivables & payables, interest receivable & payable, Statistics, Cash & Fund flow, Day book List of Accounts, Reversing journals, optional vouchers, post-dated vouchers.

##### UNIT-IV

Create, Alter & Display Stock Groups and Stock Items, All inventory voucher types and transactions Inventory details in accounting vouchers.

Reports like Stock summary, Inventory books like Stock item, Group summary, Stock transfers, Physical stock register, Movement analysis, Stock group & item analysis,

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stock category analysis Ageing analysis, Sales order & Purchase order book, Statement of inventory related to Go downs, 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

Cheque Printing, Common printing options, Different printing formats, Multi-Account printing, Dynamic- Report specific options, Creating Group Company, Use of Tally vault, Using Security control & defining different security levels, Use of Tally Audit

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.

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#### Reference Books:

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- Nadhani, K.K, Accounting with Tally, BPB Publications, New Delhi
- Kogent Learning Solution, Tally ERP 9 in simple steps (Hindi), Dreamtech Press, New Delhi
- Goyal, Hemant Kumar, कम्प्यूटर द्वारा एकाउंटिंग, Radha Pocket Books
- Goyal, Hemant Kumar Sharma, Rajkumar, ए 2 जेड कम्प्यूटर द्वारा एकाउंटस, Ravi Pocket Books, Meerut
- N. Satyapal, Using Tally, Khanna Books Publishers, New Delhi
- Nadhani, Ashok K, Nadhani, Kisor K, Implementing Tally 9, BPB Publications, New Delhi

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## SEMESTER-II

### 2PGDCA4(A) – MULTIMEDIA WITH CORELDRAW, PREMIER & SOUND FORGE

#### (ELECTIVE-IV)

##### UNIT-I

Introduction to CorelDraw, 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-II

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-III

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

##### UNIT-IV

**Adobe Premier:** Introduction, Area of Use, Setting up new Project, Workspace: Project Video Display, Selected Clip Display, project panel Project Timeline Toolbar,

Toolbar description: Selection Tool, Track Select Forward Tool, Track Select Backward Tool Ripple Edit Tool, Rolling Edit Tool, Rate Stretch Tool, Razor tool, Slip tool, Slide Tool, Pen Tool, Hand Tool, Zoom Tool.

Importing files into Premier, Sequence, Titles, Video Motion, Video Opacity, Transition Panel, Effect panel, Color Correction, Adjusting Video Speed, Saving Project, Exporting Video

##### UNIT-V

**Sound Forge:** Introduction, Interface, Editing Toolbar, Transport toolbar, Opening new file, playing a file, playing file from specific point, playing a selection, Basic Sound Editing: Copying, Pasting, Cutting, Deleting, Cropping, Mixing, Recording Audio Normalizing, Using Markers, Noise Reduction.

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#### Reference Books:

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- Learn Corel Draw 11 by BPB PUBLISHING
- Corel Draw the official Guide by Gray David Bouton, Corel Press

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- Corel Draw Course 11, 12, X To X5 BY VISHNU P. SINGH, BPB PUBLISHING
- Instant sound forge (Audio) Fisher, Jeffrey,
- A guide to film making with software tools: Adobe Premire and Sound Forge NIIT

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**Practical Questions:**

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Q. Refer the following points and Design a wedding invitation card. Invitation Card should contain following:

- Size of card – 4.5 x 6.25 or 5 x 7 inches
- Proper phrase for invitation (Hindi or English)
- Name of bride and groom. (Hindi or English)
- Venue with garden name and address or Home Address (Hindi or English)
- Date of Marriage Ceremony.
- Name of Host
- Card Template and colour should match with mood of occasion.

Q. Design a cover page for a book on “Personality Development”. Book Cover should include the following:

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

Q. Refer the following points and–design an invitation card for Showroom Opening based on following points:

- Size of card – 4.5 x 6.25 or 5 x 7 inches
- Name of showroom is “Charanpaduka (may try in hindi)”
- Charanpaduka are sellers of footwear with tagline Go Happy.
- New showroom is opening in – Platinum Plaza, Mata Mandir Road, Bhopal
- Date of opening ceremony is – Sunday, 22th April 2018 Timing 11:00 AM
- Proper phrase for invitation.
- Theme and background image or template of card should match with mood of occasion.

Q. Design a poster for a student film which is a children film having 3-4 characters.

General Description of poster may include –

- Size of poster – 11 x 17 inches or 8.5 x 11 inches.
- Name of Film – Khulja Shim Shim
- Characters – two boys and a girl
- Direction – Suraj Jain
- Camera – Vinay Kumar
- Music – Sharmila

Khulja shim shim is a children film which about fulfilling a dream of children who want to go to Bhopal by train. Three children live in a village and they do not have enough money to buy a train ticket. Film is about how they fulfil their dream.

*M. Maheshwari*  
 19/04/2018

*Jal*

*CM*

## SEMESTER-II

### 2PGDCA4(B) – PROGRAMMING WITH ASP.NET

#### (ELECTIVE-IV)

##### UNIT-I

Concepts of Hypertext & HTML, Elements of HTML syntax, Head & Body Sections, Building HTML documents, Inserting texts, Images, Hyperlinks, Backgrounds and Color controls, 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-II

Overview of Dynamic Web page, introduction & features of ASP.NET, Understanding ASP.NET Controls, Applications, Web servers, IIS, Web forms, web form controls, server controls, client controls. Adding controls to a web form, Buttons, Text Box, Labels, Checkbox, Radio Buttons, List Box.

##### UNIT-III

Running a web Application, creating a multiform web project, Form Validation: Client side validation, server Side validation, Validation Controls: Required Field Comparison Range. Calendar control, Ad rotator Control, Internet Explorer Control, Accessing Data using Data Adapters and Datasets

##### UNIT-IV

Database programming for websites, Creating Connection, Accessing Data using Data Adapters and Datasets , using Command & Data Reader, data bind Controls, data grid. Add, delete, move & update records to dataset. Projects in ASP.NET using database

##### UNIT-V

Introduction to XML in .NET, XML basics, attributes, fundamental XML classes, Document, textwriter, textreader, XML validations, XML in ADO.NET, The XML Data Document, Introduction to Web services, State management- View state, Session state, Application state SOAP, web service description language.

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#### **Reference Books (Based on Visual Studio 2010 or Above):**

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- The Complete Reference ASP.NET by Mathew Macdonald, TMH.
- Professional ASP.NET- Wrox publication.
- Active Server Pages 2.0 (Unleashed) by Stephen Walther: Techmedia.
- ASP 3 Programming Bible by Eric A. Smith: IDG Books.

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### Practical Questions:

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- Q. Write a Program to illustrate comment, H1.... H6 and div tag.
- Q. Write a Program to illustrate text formatting tags, ordered list tag and unordered list tag.
- Q. Write a Program to illustrate Image tag and Hyperlink tag.
- Q. Create a webpage showing the use of buttons, textbox, labels and checkbox.
- Q. Create a webpage having a registration form for a company.
- Q. Create simple application using web controls.
- Q. Write a Program to illustrate Validation controls.
- Q. Write a Program to generate the Login control.
- Q. Write a Program to perform Asp.Net state.
- Q. Write a Program to display holiday in calendar.
- Q. Write a Program to bind data in a multiline textbox by querying in another textbox.
- Q. Write a Program to create an own table and bind data using data grid.

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