

Diploma in Computer Applications (DCA) 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.	7805	1DCA1	Computers Fundamentals	80	32	-	-	20	08	100
2.	7806	1DCA2	PC Packages (Word, Excel, Powerpoint)	80	32	25	10	20	08	125
Elective-I (Any one)										
3.	7807	1DCA3 (A)	Database Using Foxpro	80	32	25	10	20	08	125
4.	7808	1DCA3 (B)	Database Using MS-Access	80	32	25	10	20	08	125

Diploma in Computer Applications (DCA) 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.	7905	2DCA1	IT Trends	80	32	-	-	20	08	100
2.	7906	2DCA2	Internet and E-Commerce	80	32	25	10	20	08	125
Elective-I (Any one)										
3.	7907	2DCA3 (A)	Multimedia with Corel Draw	80	32	25	10	20	08	125
4.	7908	2DCA3 (B)	DTP with PageMaker & Photoshop	80	32	25	10	20	08	125

**SCHEME FOR
DIPLOMA IN COMPUTER APPLICATION
(DCA)**

SEMESTER -I

Subject Code	Subject Name	Scheme		Theory Paper	Practical Exams	Internal Evaluation	Total Marks	
		L	P					
1DCA1	Computers Fundamentals	4		80		20	100	
1DCA2	PC Packages (Word, Excel, PowerPoint)	3	1	80	25	20	125	
1DCA3(A) OR 1DCA3(B)	Elective - I Database Using FoxPro	3	1	80	25	20	125	
	Database Using MS Access	3	1	80	25	20	125	
Total								350

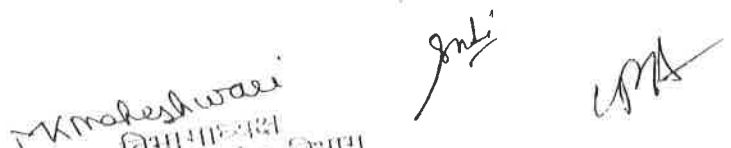
(L - Lecture, P-Practical)

SEMESTER -II

Subject Code	Subject Name	Scheme		Theory Paper	Practical Exams	Internal Evaluation	Total Marks	
		L	P					
2DCA1	IT Trends	4		80		20	100	
2DCA2	Internet and E-Commerce	3	1	80	25	20	125	
2DCA3(A) OR 2DCA3(B)	Elective - II Multimedia With Corel Draw	3	1	80	25	20	125	
	DTP with PageMaker & Photoshop	3	1	80	25	20	125	
Total								350

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.


 Dr. Manish Mishra Dr. Sunita Dwivedi Prof. C.P. Agrawal

SEMESTER-I

1DCA1 - COMPUTERS FUNDAMENTALS

UNIT-I

Brief history of development of computers, Computer system concepts, Computer system characteristics, Basic components of a computer system - Control unit, ALU, Input/Output, semiconductor Memory functions and characteristics, memory - RAM, ROM, EPROM, PROM and other types of memory, Capabilities and limitations, Generations of computers, Analog & Digital & Hybrid Computers, General & Special Purpose computers, Types of computers- Micro, Mini, Mainframe and Supercomputers, Characteristics and area of Uses.

Personal Computer (PCs-evolution of PCs, configurations of PCs, Pentium and Newer, PCs specifications and main characteristics, Types of PCs- Desktop, Laptop, Notebook, Palmtop, PDA etc.

UNIT-II

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

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

UNIT-III

Storage Fundamentals - Primary Vs Secondary Data Storage and Retrieval Methods - Sequential, Direct And Index Sequential, Various Storage Devices - Magnetic Disks, Hard Disk Drives, Floppy, Disks, Zip Drive, Optical Disks, CD, VCD, CD-R, CD-RW, DVD, DVD-RW, Video Disk, Blue Ray Disc, flash drives SD/MMC Memory cards, Solid-State Drive (SSD), Physical structure of floppy & hard disk, drive naming conventions in PC.

UNIT-IV

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

Application Software 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 computers- Binary, Octal, Decimal, Hexadecimal their conversion

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Lecturer in Computer Science

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UNIT-V

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, 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.

Reference Books:

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

MK Maheshwari

विभागाध्यक्ष
कम्प्यूटर अनुप्रयोग विभाग

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SEMESTER-I

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

UNIT-I

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

Accessories-MS Paint, Notepad, WordPad, Windows Media Player, Calculator, Games, Math Input Panel, Language Settings-How to set other languages on computer, Using Control Panel to add, remove or configuring new or existing devices and software programmes and fonts, Enhance the performance of computer, Using Disk Clean-up-Using Disk Defragmenter, Using Windows Update, Protecting your computer against viruses.

UNIT-II

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 , Working with Headers and Footers, Tables: Creating a simple table, Creating a table using the table menu, Entering and editing text in a table.

UNIT-III

Advanced Features of MSWord-Spell Check, Thesaurus, Find & Replace;, Files, Auto texts, Symbols etc., Working with Columns, Tabs & Indents, Margins & Space management in Document, Page, Column & Section Breaks, Adding References, Using footnote and endnote in documents, creating automatic Table of Contents,

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.

Mail Merge in MS Word, Mail Merge concept, Envelops & Mailing Labels, Importing and exporting to and from various formats

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, 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, SmartArt 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 options, Slide Master, Handout Master and Notes Master.

Reference Books:

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

M. Maheshwari

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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 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.
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

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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 बड़कर 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, अब 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 बूढ़े को हँसाओ, वह अपने को जवान समझने लगेगा। एक बालक को हँसाओ, उसके 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 exp'ain 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

M. Maheshwari

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CPA

SEMESTER-I

1DCA3(B) - DATABASE USING MS ACCESS

(ELECTIVE-I)

UNIT-I

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

UNIT-II

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

UNIT-III

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

UNIT-IV

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

UNIT-V

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

Reference Books:

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

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Jal.

CPA

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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
- Create form to Input data using various controls

M. K. Maheshwari
10/10/2011
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