

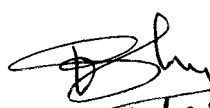
PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)


POST GRADUATE DIPLOMA IN COMPUTER APPLICATION  
[DURATION – ONE YEAR – FULL TIME]


SCHEME OF TEACHING AND EXAMINATIONS  
P.G.D.C.A. (Post Graduate Diploma in Computer Applications)

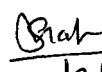
**FIRST SEMESTER**

Subject Code	SUBJECTS	Teaching Load Per Week			Examination Marks							
					Max. Marks				Min. Marks			
		L	T	P	Th	Ses	Pr	Total	Th	Ses	Pr	Total
PGDCA101	Fundamentals of Computers	3	2	–	80	20	–	100	20	13	–	33
PGDCA102	Office Automation	3	2	–	80	20	–	100	20	13	–	33
PGDCA103	Programming in C	3	2	–	80	20	–	100	20	13	–	33
PGDCA104	Practical based on PGDCA-102	–	–	3x2	–	–	100	100	–	–	40	40
PGDCA105	Practical based on PGDCA-103	–	–	3x2	–	–	100	100	–	–	40	40
	<b>TOTAL</b>	<b>9</b>	<b>6</b>	<b>12</b>	<b>240</b>	<b>60</b>	<b>200</b>	<b>500</b>	<b>60</b>	<b>39</b>	<b>80</b>	<b>179</b>

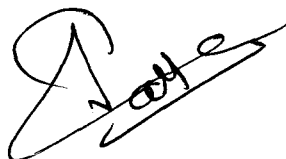
  
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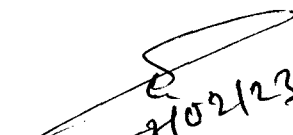
  
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**SCHEME OF TEACHING AND EXAMINATION**  
**P.G.D.C.A. (Post Graduate Diploma in Computer Applications)**

**SECOND SEMESTER**

Subject Code	SUBJECTS	Teaching Load Per Week			Examination Marks							
		L	T	P	Max. Marks				Min. Marks			
					Th	Ses	Pr	Total	Th	Ses	Pr	Total
PGDCA106	Programming in VB .Net	3	2	—	80	20	—	100	20	13	—	33
PGDCA107	Database Management Systems	3	2	—	80	20	—	100	20	13	—	33
PGDCA108	Internet and E-Commerce	3	2	—	80	20	—	100	20	13	—	33
PGDCA109	Practical based on PGDCA106	—	—	3x2	—	—	100	100	—	—	40	40
PGDCA110	Practical based on PGDCA107 and PGDCA-108	—	—	3x2	—	—	100	100	—	—	40	40
	<b>TOTAL</b>	<b>9</b>	<b>6</b>	<b>12</b>	<b>240</b>	<b>60</b>	<b>200</b>	<b>500</b>	<b>60</b>	<b>39</b>	<b>80</b>	<b>179</b>

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**PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)**

**POST GRADUATE DIPLOMA IN COMPUTER APPLICATION  
[DURATION – ONE YEAR – FULL TIME]**

The duration of the course shall be one year consisting of two semesters. There shall be three theories and two practical courses in the each semester.

**FIRST SEMESTER**

- PGDCA-101 : Fundamentals of Computers.**
- PGDCA-102 : Office Automation.**
- PGDCA-103 : Programming in C**
- PGDCA-104 : Practical based on PGDCA-102.**
- PGDCA-105 : Practical based on PGDCA-103.**

**Second Semester**

- PGDCA-106 : Programming in VB .Net**
- PGDCA-107 : Database Management Systems.**
- PGDCA-108 : Internet and E- Commerce.**
- PGDCA-109 : Practical based on PGDCA106**
- PGDCA-110 : Practical based on PGDCA107 and PGDCA-108**

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# FUNDAMENTALS OF COMPUTERS

Subject Code - PGDCA-101

## Course Outcomes

- Bridge the fundamental concepts of computers with the present level of knowledge of the students.
- Student will come to know about different input and output devices.
- Understand the basics of digital computer along with different storage unit.
- Familiarize operating systems, programming languages, peripheral devices, networking, multimedia and internet
- Understand different types of software .

## Syllabus

### UNIT - I Introduction to Computers

**Computer system:** characteristics and capabilities. Computer Hardware and Software: Block Diagram of a Computer, Different Data Processing: Data, Data Processing System, Storing Data, Processing Data. Types of Computers: Analogue, Digital, Hybrid, General and Special Purpose Computers. Generation of Computers.

### UNIT - II Computer Peripherals

**Introduction to Input Devices:** Categorizing Input Hardware, Keyboard, Direct Entry – Card Readers, Scanning Devices – O.M.R., Character Readers, Thumb Scanner, MICR, Smart Cards, Voice Input Devices, Pointing Devices – Mouse, Light Pen, Touch Screen. **Computer Output:** Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output Microfilm/Microfiche (COM) systems, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies, Projectors, Speakers.

### UNIT - III Basic Components & Storage

**Central Processing Unit:** The Microprocessor, control unit, A.L.U., Registers, Buses, Main Memory, Main Memory (RAM) for microcomputers, Read Only Memory(ROM). **Storage Devices:** Storage Fundamentals, Primary and Secondary Storage, Data Storage and Retrieval Methods – Sequential, Direct & Indexed Sequential, Tape Storage and Retrieval Methods Tape storage Devices, characteristics and limitations, Direct access Storage and Microcomputers - Hard Disks, Disk Cartridges, Direct Access Storage Devices for large Computer systems, Mass storage systems and Optical Disks, CD ROM.

### UNIT - IV Computer Software & Languages


**System Software:** System software Vs. Application Software, Types of System Software, Introduction and Types of Operating Systems. Boot Loader, Diagnostic Programs, BIOS, Utility Programs. **Application Software:** Microcomputer Software, Interacting with the System, Trends in PC software, Types of Application Software, Difference between Program and Packages. **Computer Languages:** Definition, Generations of computer languages, Types of Languages, Language Processors: Assembler, Interpreter, Compiler.

### UNIT – V: Operating System and Linux

Introduction, Uses of OS, Functions of OS, Booting process, Types of Reboot, Booting from different OS, Types of OS, DOS, Windows, Linux Open source Software concept and evolution of Linux; Features of Multi-User Operating System; Structure of Linux OS; Security Features of Linux, File System, Directory Structure and related commands. Linux Editors & editor commands, Linux commands cd, md, rm, mv, cp, ls, cat, find, grep.

### Books Recommended:

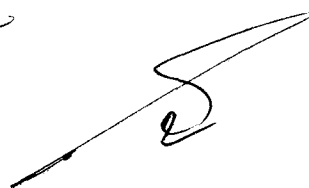
1. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
2. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition.
3. Operating System Concepts, Silberchartz, Galvin and Gagne, Wiley India Edition
4. Unix Concepts and Applications, Sumitabha Das, McGarw hill

  
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# OFFICE AUTOMATION

## Subject Code - PGDCA-102

### Course Outcomes

After completion of the course,

- Students would be able to documents, spreadsheets, make small Presentations and would be acquainted with internet.
- Student will come to know about database creation and about creation of journal, ledger, trial balance of transaction in tally software.
- This subject helps in understanding the basics of office automation task.

### Syllabus

#### UNIT - I Using Office with MS-Word

Introduction to word processing software and its features, Creating new document, Saving documents, Opening and printing documents. **Home Tab:** Setting fonts, Paragraph settings, various styles (Normal, No spacing, Heading1, Heading2, Title, Strong), Find & replace, Format painter, Copy paste and paste special. **Insert Tab:** Pages, Tables, pictures, clipart, shapes, header & footer, word art, equation and symbols. **Page Layout Tab:** Page setup, page Background, Paragraph (indent and spacing). **Mailing Tab:** Create envelopes and Labels, Mail merge. **Review Tab:** Spelling and grammar check, New comment, Protect document, **View Tab:** Document views, Zoom, Window (New window, Split, Switch window).

#### UNIT – II Working with MS-Excel

Introducing Excel, Use of excel sheet, Creating new sheet, Saving, Opening, and printing workbook. **Home Tab:** Font, Alignment, Number, Styles and cells and editing, Conditional Formatting. **Insert Tab:** Table, Charts (column chart, Pie chart, Bar chart, Line chart) and Texts (header & footer, word art, signature line). **Page Layout Tab :** Page setup options, Scale to fit(width, height, scale). **Formulas Tab :** Autosum (sum, average, min, max), logical(IF, and ,or ,not ,true, false), Math & trig (sin, cosine, tangent, ceil, floor, fact, mod, log), watch window. **Data Tab:** Get external data from MS Access, Sort and filter options , Data validation, Group and ungroup. **Review Tab:** Protect sheet, Protect workbook, Share workbook. **View Tab:** Page breaks, Page layout, Freezing panes, Split and hide.

#### UNIT – III Working with MS-PowerPoint


Introducing power point, Use of power point presentation, Creating new slides saving, Opening and printing. **Home Tab:** New slide, Layout, Reset, Delete, Setting text direction, Align text, Convert to smart art, Drawing options. **Insert Tab:** Table, picture, clipart, photo album, smart art, shapes and chart, movie and sound, hyperlink and action, text box , word art, object. **Design Tab:** Page setup options, slide orientation, applying various themes, selecting background style and formatting it. **Animations Tab:** Custom animation for entrance, exit and emphasis, applying slide transition, setting transition speed and sound, animation on rehears timing. **Slide show &view Tab:** Start slid show options, setup options. **View tab:** Presentation views, colours and window option.

#### UNIT – IV Working with MS-Access

Front end and back end of application, Introduction to DBMS, Features of DBMS, Creating blank databases, saving it in accdb format. Defining data types in ms access. **Home Tab:** Datasheet view, design view, pivot chart view, pivot table view, sort and filter options. **Create Tab:** Creating tables, Creating reports, Query wizard. **External Data Tab:** importing data from access and excel sheet, exporting data to excel and ms word. **Datasheet Tab:** Relationships, Fields and columns options, Data type and formatting options.



#### UNIT – V Working with MS-Publisher


Getting Started with Microsoft Publisher : Navigate the Interface , Customize the Publisher Interface, Create a Publication. Adding Content to a Publication: Add Text to a Publication, Add Pages and Picture Placeholders, Control the Display of Content in Text Boxes, Apply Building Blocks to a Publication. Formatting Text & Paragraphs in a Publication: Format Text, Format Paragraphs, Apply Schemes. Managing Text in a Publication: Edit Text in a Publication, Work with Tables, Insert Symbols and Special Characters. Working with Graphics in a Publication: Insert Graphics in a Publication, Customize the Appearance of Pictures. Preparing a Publication for Sharing and Printing: Check the Design of a Publication, Save a Publication in Different Formats, Print a Publication, Share a Publication

  
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# PROGRAMMING IN C

## Subject Code - PGDCA-103

### Course Outcomes

After the course the students are expected to be able to (this is what the exams will test) :

- Identify situations where computational methods and computers would be useful.
- Given a computational problem, identify and abstract the programming task involved.
- Approach the programming tasks using techniques learned and write pseudo-code.
- Choose the right data representation formats based on the requirements of the problem.
- Use the comparisons and limitations of the various programming constructs and choose the right one for the task in hand.
- Write the program on a computer, edit, compile, debug, correct, recompile and run it.
- Identify tasks in which the numerical techniques learned are applicable and apply them to write programs, and hence use computers effectively to solve the task.

### Syllabus

#### UNIT – I: Introduction:

Introduction Character set, Identifiers and Keywords, Variables, Displaying variables, Reading Variables, Character and Character String, Qualifiers, Type define Statements, Value initialized variables, Constants, Constant Qualifier, Operators and Expressions, Operator Precedence and Associativity, Basic input output: Single Character I/O, General Outputs, Types of Characters in format string, Scanf with specifiers, Searchset Arrangements and Suppression Character, Format Specifiers for scanf.

#### UNIT – II: Control Structures & Functions:

**Control Structure:** if-statement, if-else statement, multiple decisions, nested if statements, switch statement, for-loop, while-loop, do-while loop, break statement, continue statement, goto statement.

**Functions:** The main function, functions accepting more than one parameter, User defined and library functions, Concept associatively with functions, function parameter, Return value, recursion comparisons of iteration and recursion variable length argument list.

#### UNIT – III: Arrays & Pointes:

Scope and Extent, Arrays, Strings, Multidimensional Arrays, Strings, Array of Strings, Function in String, Pointers: Definition and use of pointer, address operator, pointer variable, referencing pointer, void pointers, pointer arithmetic, pointer to pointer, pointer and arrays, passing arrays to functions, pointer and functions, accessing array inside functions, pointers and two dimensional arrays, array of pointers, pointers constants, pointer and strings.

#### UNIT – IV: Structure and Union:

Declaring and using Structure, Structure initialization, Structure within Structure, Operations on Structures, Array of Structure, Array within Structure, Creating user defined data type, pointer to Structure and function. Union, difference between Union and Structure, Operations on Union, Scope of Union.

#### UNIT – V: Dynamic Memory Allocation and File Handling:

**Dynamic Memory Allocation:** Library functions for Dynamic memory allocation, Dynamic Multi-Dimensional arrays.

**File Handling:** - Introduction, Structure, File handling, Functions file types, Un-buffered and buffered file, Error handling.

### Recommended Books:

1. Let Us C - Yashwant Kanetkar.
2. Programming in C - E. Balagurusamy

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## PGDCA-104: Practical based on PGDCA-102

### 1. Scheme of Examination: -

Practical examination will be of 3 hours duration. The distribution of practical marks is as follows:

Program 1 (Word)	-	15
Program 2 (Excel)	-	15
Program 3 (Access)	-	15
Program 4 (Powerpoint/Publisher)	-	15
Viva-Voice	-	20
[Practical Copy + Internal Record]	-	20
<b>Total</b>	-	<b>100</b>

2 In every program there should be comment for each coded line or block of code.

3 Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.

4 All the following programs or a similar type of programs should be prepared.

### List of Practical

#### MS- WORD

**File New, Open, Save, Cut, Copy, Paste, Drag Drop, Bullets and Numbering, Undo, Redo, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting.**

1. Open a document. Type the following text and perform the tasks as instructed below:-

#### Working with Word Processor

As already mentioned, a word processor is a package that processes textual matter and creates organized and flawless documents. In addition to it a word processor not only remove all the limitations of typewriter but also offers various useful features that cannot be even dreamt of with typewriter.

Also if same textual matter is to be reproduced with minor changes, retyping the only option in typewriters.

The word processing (and word processor) originated way back in 1964 when special typewriters. Magnetic Tape Selectric typewriters (MIST) were launched by IBM (International Business Machines).

(i) Insert the following text after the first paragraph

The main components of a word processing system are listed below:

- Computer
- Printer
- A word processing software

(ii) Save the document as Word1.doc

(iii) Move the second paragraph to the end of the document. Using darg & drop.

(iv) Move the second paragraph in the end of the document using cut, paste operations.

(v) Undo the above actions.

(vi) Now use Redo actions

(vii) Go to the End of the document ( in one step)

(viii) Go to the Beginning of document ( in one step)

(ix) Insert page break before the third paragraph.

(x) Search the word "computer: in your document with options Match case, find whole words only.

(xi) Replace the word "typewriters" with "word processor"

(xii) Undo the above action

(xiii) Remove All page breaks from your document

(xiv) Change the magnification of your document to different percentages using zoom features.

(xv) Format the above written paragraphs and give the options as follows:

- Alignment justified
- Indentation: left 0.2 right:0.2
- Spacing: before 6 pt. after:6 pt.
- Special: first line by :0.4"
- Line spacing 1.5 lines.

(xvi) Set the default tab stop to 0.3"

(xvii) Set the margins to 1.25

(xviii) Format the page using

- Left margin:0.5, right margin: 0.5
- Top margin:1.5, bottom margin:0.5

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c. Gutter Margin: 1 indentation: left 0.2 right:0.2

d. Header Margin:0.5

(xix) Format the each occurrence of group of words 'Word Processor' as bold, italic, under line and small caps using find and replace with formatting options.

(xx) Align the heading to Center and make it bold, underlined and italicized.

**File New, Open, Save, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting.**

2. Type the text as show below and perform the tasks as directed:

**Computers**

COMPUTER is an electronic device that processes data and gives meaningful information. Computers are being used in almost all the fields today

EXPERT SYSTEMS

HUMAN THINKING AND ARTIFICIAL INTELLIGENCE

Can computer think?

AI at work Today: Natural Language programs and Expert Systems.

THE IMPACT OF COMPUTERS ON PEOPLE

The Positive Impact

The Potential Dangers

THE IMPACT OF COMPUTERS ON ORGANIZATIONS

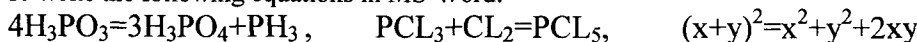
The information Processing Industry

The Positive impact on Using Organizations

The Potential Dangers for Using Organizations

1. Search for the word 'Computer' in the entire document. All the occurrences of the given word are to be searched irrespective of the case.
2. In the above question note that word also searches 'computerization and 'computerisations'. Now make sure that this time Word searches only for the word 'computer' in the entire document.
3. Change the entire uppercase letter to lowercase.
4. Give a heading to the above written text 'COMPUTERS IN TODAY'S WORLD'
5. Centre aligns the Heading text Computer that appears in first line.
6. Apply outside border to entire document.
7. Apply outside border to the just heading text.
8. Change page setup according to the following specifications  
Top margin: 1.5", bottom margin: 1.5"  
Gutter: 1", left margin: 1.5"  
Right margin: 1"  
Page width: 7.5", page height: 6.5 "  
Orientation: portrait
9. Give a header 'Creations' and footer 'The school of computing'. The footer should also consist of page no's.
10. Give appropriate commands for giving different header and footers for first page and odd & even pages.
11. Save and close the document.

3. Write the following equations in MS-Word:



4. Write the following equations in MS-Word:



5. Write the following in MS-Word:

1. Preheat the oven to 220°C.
2. Copyright ©
3. Registered ®
4. Trademark ™

6. Create the following table in MS-Word:

Name		Rahul	
Roll No.		101	
Subject	Max	Min	Obtain
Java	100	33	75
Multimedia	100	33	70

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7. Create a document in MS-Word. Set the watermark as **Microsoft**. Also write the following text as formatted below:

*measuring programming progress by lines of code is like measuring aircraft building progress by weight.*

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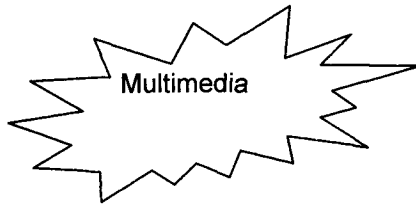
7. Create a document in MS-Word. Set the watermark as **Microsoft**. Also write the following text as formatted below:

*measuring programming progress by lines of code is like measuring aircraft building progress by weight.*  
 --Bill Gates

8. Create the following:



9. Create the following:



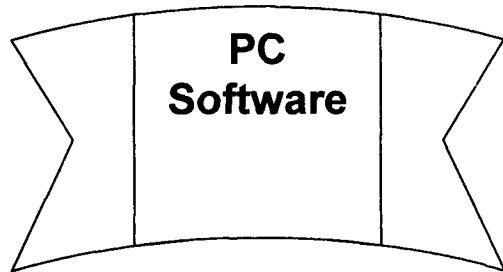
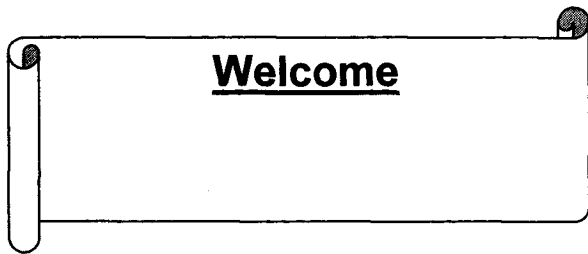
10. Create the following table in MS-Word:

Admission 2011-2012					
Course	OC	OB	MBC	SC/ST	Total
Computer Science	9	18	5	5	37
Commerce	14	25	6	5	50
Mathematics	12	20	4	4	40

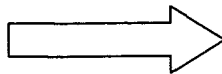
11. Create Table as shown

Car		Price
Maruti	Omni Van	200000
	Maruti 800	242000
Tata	Sumo	390000
	Sierra	447000

12. Insert the following in MS-Word.



13. Insert the following in MS-Word.



14. Write the following in MS-Word.

- This is sentencecase.
- this is lowercase.
- THIS IS UPPERCASE.
- This Is Capitalise Each Word.
- tHIS IS tOGGLE cASE.

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**MS – EXCEL**

1. Create the following worksheet and save the worksheet as wages.xls

**PACE COMPUTERS (ATC CEDT), Govt. of India  
Payroll for Employee (Temporary)**

Today's date :

Pay Rate :

Worker's Name	Hired On	days Worked	Gross Wages
Kushagra	3-Mar-07		
Pradeep	4-Mar-07		
Puneet	5-Mar-07		
Rajeev	6-Mar-07		

(I) Calculate days work and gross wages

2. Create the following worksheet and save the worksheet as wages.xls

Name	Basic (monthly) (Rs.)	HRA(% of basic)	DA (Rs.)	Total Salary (1997)	Bonus (Rs)	Total Salary (1998)	% (Increase)
Shirome	5000	10	450		1200		
Somya	9000	15	800		200		
Tanya	7000	12	900		1800		

- Calculate the total salary as sum of Basic salary, HRA ,DA, for each employee for 1997
- Calculate total salary for year 1998 as sum of salary of 1997 and bonus
- Calculate % increase in salary from 1997 to 1998

3. Create a worksheet as follows

**Pace computer ( ATC CEDT ) Govt. Of India  
Payroll for employee (Permanent)**

Empcode	name	doj	salary	bonus	net salary
E001	Meenu	3-Mar-95	5000		
E002	Manoj	4-Mar-06	4000		
E003	Preeti	3-Mar-95	4800		
E004	Sumita	6-Mar-07	7500		

- allow bonus 8000 to employee having service >2 year other wise allow bonus 3000
- find net salary as sum of bonus and salary

4. create the worksheet as follows

Roll No	Name	English	Maths	Total	Average	Division
101	Kushagra	95	99			
102	Ajay	92	95			
103	Vijay	70	69			
				Class Average		

- find Total of two subject for each student
- find average of two subject for each student
- find class as average of average column
- find division of student as first, second, third, assume percentage of division of your own and maximum marks in each student as 100
- Apply conditional formatting for division column, first division should be in bold, second division should be in italic and third division should be underline

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5. Create macro in excel to make selected cell, bold, italic outside bordered and center across select

6. create bar chart with given data

	2001	2002	2003
Tea	19	23	25
Coffee	22	24	22
Sugar	45	40	45

- (I) Provide heading production detail
- (II) Provide z axis title; lacks metric tone
- (III) Provide x axis title year

7. Create a table with column heading as shown below and using form perform data entry of records.

Zone	Department	Employee	Salary
West	Marketing	Mukesh	10500
East	Sales	Rahul	20000
South	Marketing	Suresh	5500
North	Marketing	Anju	25000
South	Sales	Neeraj	8000
North	Sales	Ajay	8000
South	Marketing	Mahesh	7500
West	Sales	Rajesh	4500

- i. Sort the data according to Zone then by Department
- ii. Use group and outline feature to show & hide details

8. Create a table with column heading as shown below and using form perform data entry of records.

Zone	Department	Employee	Salary
West	Marketing	Mukesh	10500
East	Sales	Rahul	20000
South	Marketing	Suresh	5500
North	Marketing	Anju	25000
South	Sales	Neeraj	8000
North	Sales	Ajay	8000
South	Marketing	Mahesh	7500
West	Sales	Rajesh	4500

- (I) Use filter command to show records having zone: West
- (II) Use filter command to show records having zone: West and salary less than 5000
- (III) Use filter command to show records having salary greater than 10000

9. Create pivot table using Data of exercise 8

10. Suppose a database exists in ms-access you are required to import the data. How will you?

11. Create a table using feature

Principle	1500
Rate	4%
Time	5

300	3	4	5
1%	45	60	75
2%	90	120	150
3%	135	180	225

12. Using goal seek feature find out the interest rate it must be to earn interest 500

Principle	1500
Rate	4%
Time	5
Interest	300

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**MS-Access**

Q.1. Create the following table in MS-Access:

Field Name	Data Type	Description
ContactID	AutoNumber	Primary Key
ContactType	Text 50	Type of contact (Wholesale, dealer, other)
Name	Text 50	Contact's first name
Company	Text 50	The Contact's employer
Address	Text 50	Contact's address
City	Text 50	Contact's city
State	Text 50	Contact's state
ZipCode	Text 50	Contact's zip code
Phone	Text 50	Contact's phone
Fax	Text 50	Contact's fax
E-Mail	Text 100	Contact's e-mail address
WebSite	Text 100	Contact's Web address
LastSalesDate	Date/Time	The most recent date the contact purchased something
DiscountPercent	Number	The customary discount provided to the customer
Notes	Memo	Notes and observations regarding this customer
Active	Yes/No	Whether the customer is still buying or selling products

Q.2. Create the following tables in MS-Access with the referential integrity-foreign key:

**1. tblProducts**

**Primary Key - ProductID**

ProductID	Description	Category	Quantity	Cost	RetailPrice	Product Number	SalePrice	Taxable
-----------	-------------	----------	----------	------	-------------	----------------	-----------	---------

**2. tblSalesLineItems**

**Primary Key - SalesLineItemID**

SalesLineItemID	InvoiceNumber	ProductID	ProductNumber	Quantity	Description	Price	Discount
-----------------	---------------	-----------	---------------	----------	-------------	-------	----------

**3. tblSales**

**Primary Key - InvoiceNumber**

InvoiceNumber	SaleDate	InvoiceDate	Buyer	PaymentMethod	TaxLocation	TaxRate
---------------	----------	-------------	-------	---------------	-------------	---------

**MS PowerPoint**

- Q 1 Create a PPT of Atleast 10 Slides with one slide for comparison, one slide displaying a chart with the table.
- Q 2 Create a PPT presentation use rehearse timing for the slide show
- Q 3 Create PPT presentation slide import sound and video clips.
- Q 4 Create PPT presentation with hyperlinking.
- Q 5 Create PPT presentation and apply themes and transitions.

**MS Publisher**

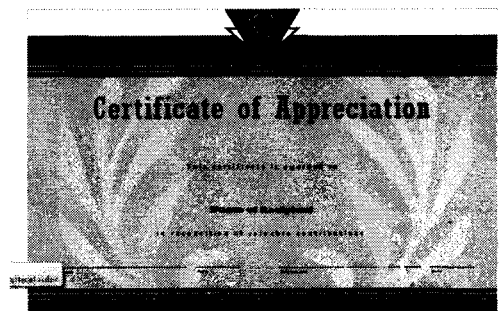
- 1. Create a **business card** for your business. Include the following information:
  - a. Logo
  - b. Company Name
  - c. Your name and title (Eg. Owner, President, Manager)
  - d. Address
  - e. Phone
  - f. Email
  - g. Web address
- 2. Create a Greeting Card. Using the following
  - a) Greeting of your choice
  - b) Image on the front of the card
  - c) Cost
  - d) Made by
  - e) Image on the inside folds of the card
  - f) Image on the back of the card
- 3. create a Letterhead for your business. Be sure to include the following information:
  - a. Logo
  - b. Company Name

*John*  
07-12-2023

*John*      *John*      *John*      *John*

- c. Address
  - d. Phone
  - e. Email
  - f. Web address
4. Create a Flyer for the Open House. Be sure to include the following information:
    - a. Logo
    - b. Company Name
    - c. Address
    - d. Open House
    - e. Date and Time of the Open House
    - f. A little information about what your company does, if it isn't obvious
    - g. Promise some kind of food (Eg. Cookies and punch, hors d'oeuvres, cake)
    - h. Door prizes
  5. Create a brochure that must :
    - a) Modify a template to create a brochure
    - b) Replace placeholder graphics with new
    - c) Use a minimum of 2 graphics
    - d) Replace text
    - e) Appropriate use of text and graphics for a brochure
  6. Create a Invitation Card
    - a) Your Name
    - b) The Event
    - c) The Starting Time
    - d) The Place
    - e) What to Wear
    - f) What to Bring
  7. Create Award Certificate
    - a) All relevant info
    - b) An interesting graphic or picture
    - c) It must be eye catching pleasing
    - d) Originality and creativity

Keep in mind if you wish you use certificate paper or plain paper



8. Create Breakfast Product Advertisement
 

design an advertisement for a NEW and ORIGINAL breakfast product using Microsoft Publisher. This advertisement should be eye-catching, well balanced, and free of errors.

  - 1 font only-You may use different sizes and colors
  - 3 graphic maximum- Make sure they go with the theme of the ad
  - Name the product using Word Art (watch your font choice!)
  - Create a catchy slogan for the product and rotate using the custom rotate button
  - Provide a short description of the product
  - Create a coupon that includes a border, name of the product, amount saved, and expiration date.
  - Include either a table or bullets somewhere in your design that lists some of the selling points of your product
  - Must fit on one page only
9. Create a banner for a "Grand Opening". include the following:
  - a) Border
  - b) Business Name, Logo, Contact Information
  - c) Date
  - d) Incentive
  - e) Unique Design
10. Create a Gift Certificate/ Gift Card for an existing business that is similar to your group business.
  - a) Business Name, Logo, Contact Information
  - b) Recipient Name
  - c) Amount \$
  - d) Unique Design
  - e) Any other important information

*Handwritten signatures and dates:*

*07/12/2023*

*07/21/23*

*07/21/23*

*07/21/23*



8. Write program no. 6 but use library function to perform above tasks.

#### ARRAY

9. Create a single program to perform following tasks using switch, if..else, loop and single dimension character array without using library function:

- a) To reverse the string.
- b) To count the number of characters in string.
- c) To copy the one string to other string;
- d) To find whether a given string is palindrome or not.
- e) To count no. of vowels, consonants in each word of a sentence and no. of punctuation in sentence.
- f) To arrange the alphabets of a string in ascending order.

10. Create a single program to perform following tasks using switch, if..else, loop and single dimension integer array:

- a) Sort the elements.
- c) Search for presence of particular value in array element using linear search.
- d) Search for presence of particular value in array element using binary search.

11. Write a program that read the afternoon day temperature for each day of the month and then report the month average temperature as well as the days on which hottest and coolest days occurred.

12. Create a single program to perform following tasks using switch, if..else, loop and double dimension integer array of size 3x3:

- a) Addition of two matrix.
- b) Subtraction of two matrix.
- c) Multiplication of two matrix.
- d) Inverse of matrix.
- e) Transpose of matrix.
- f) Sum of diagonal elements

13. Create a single program to perform following tasks using switch, if..else, loop and double dimension character array of size 5x40:

- a) Sorting of string.
- b) Finding the largest string.
- c) Finding the smallest string.
- c) Searching for presence of a string in array.

#### FUNCTIONS

14. Write program using the function power (a, b) to calculate the value of a raised to b.

15. Write program to demonstrate difference between static and auto variable.

16. Write program to demonstrate difference between local and global variable.

17. Write a program to perform following tasks using switch...case, loops and function.

- a) Find factorial of a number
- b) Print Fibonacci series up to n terms and its sum.
- c) Print Sin series up to n terms and its sum.
- d) Print exponential series up to n terms and its sum.

18. Write a program to perform following tasks using switch...case, loops and recursive function.

- a) Find factorial of a number
- b) Print Fibonacci series up to n terms and its sum.
- c) Print Sin series up to n terms and its sum.
- d) Print exponential series up to n terms and its sum.
- e) Print natural series up to n terms and its sum

19. Write a function to accept 10 characters and display whether each input character is digit, uppercase letter or lower case letter.

*Answer by 2/2/23*

*07-22-2023*

*Prak*



## Array & Function

20. Create a single program to perform following tasks using switch, if..else, loop, function and double dimension integer array of size 3x3:
- Addition of two matrix.
  - Subtraction of two matrix.
  - Multiplication of two matrix.
  - Inverse of matrix.
  - Transpose of matrix.
21. Create a single program to perform following tasks using switch, if..else, loop, user defined function and single dimension character array:
- To reverse the string.
  - To count the number of characters in string.
  - To copy the one string to other string;
  - To find whether a given string is palindrome or not.
  - To count no. of vowels, consonant in each word of a sentence and no, of punctuations in sentence.
22. Create a single program to perform following tasks using switch, if..else, loop, function and single dimension integer array:
- Sort the elements.
  - Find largest element and smallest element.
  - Search for presence of particular value in array element using linear search.
  - Search for presence of particular value in array element using binary search.
23. Create a single program to perform following tasks using switch, if..else, loop, function and double dimension character array of size 5x40:
- Sorting of string
  - Finding the largest string, lexicographically.
  - Finding the smallest string, lexicographically.
  - Searching for presence of string in array.

## STRUCTURE & UNION

24. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare a structure variable of student. Provide facilities to input data in data members and display result of student.
25. Create a structure Date with data member's dd, mm, yy (to store date). Create another structure Employee with data members to hold name of employee, employee id and date of joining (date of joining will be hold by variable of structure Date which appears as data member in Employee Structure). Store data of an employee and print the same.
26. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare array of structure to hold data of 3 students. Provide facilities to display result of all students. Provide facility to display result of specific student whose roll number is given.
27. Write program to create structure complex having data members to store real and imaginary part. Provide following facilities:
- Add two complex nos. using structure variables.
  - Subtract two complex nos. using structure variables.
  - Multiply two complex nos. using structure variables.
  - Divide two complex nos. structure variables.

Use structure as argument to function and function returning structure.

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## POINTER

28. Define union Emp having data members:-one integer, one float and one single dimension character array. Declare a union variable in main and test the union variable.
29. Define an enum Days\_of\_Week members of which will be days of week. Declare an enum variable in main and test it.
30. Write a program of swapping two numbers and demonstrates call by value and call by reference.
31. Write program to sort strings using pointer exchange.
32. Write a program in c using pointer and function to receive a string and a character as argument and return the no. of occurrences of this character in the string.
33. Create a program having pointer to void to store address of integer variable then print value of integer variable using pointer to void. Perform the same operation for float variable.
34. Write program to find biggest number among three numbers using pointer and function.
35. Write program to Create a structure Employee having data members to store name of employee, employee id, salary. Use Pointer to structure to store data of employee and print the stored data-using pointer to structure.
36. Write program to Create a structure Employee having data members to store name of employee, employee id, salary. Use Pointer to structure to simulate dynamic array of structure store data of n employees and print the stored data of n employees using pointer to structure.
37. Write a program to sort a single dimension array of integers of n elements simulated by pointer to integer. Use function for sorting the dynamic array.
38. Write a program to sum elements of a double dimension array of integers of m rows and n columns simulated by pointer to pointer to integer. Use function for sum the elements of the dynamic array.
39. Write program to demonstrate difference between character array and pointer to character.
40. Write program to demonstrate difference between constant pointer and pointer to constant.
41. Write program to demonstrate pointer arithmetic.
42. Write program to demonstrate function-returning pointer.
43. Write program using self-referential pointer to structure to create and print the linked list, data structure.

## FILE STREAMS

44. Write program to copy content of one file to other file removing extra space between words name of files should come from command line arguments.
45. Write program to create a file 'data' containing a series of integers and count all even numbers present in the file 'data'.
46. Write a program to count no. of tabs, new lines, character and space of a file.
47. Write a program to read item number, rate and quantity from an inventory file and print the followings:
  1. Items having quantity > 5.
  2. Total cost of inventory.

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POST GRADUATE DIPLOMA IN COMPUTER APPLICATION 2022-2023

[DURATION - ONE YEAR - FULL TIME]

The duration of the course shall be one year consisting of two semesters. There shall be three theory and two practical course in the each semester.

- Second Semester:** PGDCA-106 : Programming in VB .Net  
PGDCA-107 : Database Management Systems.  
PGDCA-108 : Internet and Web Technology.  
PGDCA-109 : Practical based on PGDCA106  
PGDCA-110 : Practical based on PGDCA107 and PGDCA-108

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# PROGRAMMING IN VB .NET

## Subject Code - PGDCA-106

### Course Outcomes

- Students will understand .NET Framework and describe some of the major enhancements to the new version of Visual Basic.
- Students will describe the basic structure of a Visual Basic.NET project and use main features of the integrated development environment (IDE).
- Students will create applications using Microsoft Windows Forms
- Students will create applications that use ADO. NET

### Syllabus

#### UNIT - I : Introduction to .NET framework

Overview of .net framework features & architecture, Managed Execution process, CLR, common language specification, JIT Compilation, MSIL, Namespaces, Assemblies, metadata, Common Type System, Visual development & event driven programming, cross language, interoperability, Garbage collection.

#### UNIT - II : Programming with .NET Framework

Windows form: working with Visual Studio IDE, creating a .NET solution, MDI application, components and controls, Data types, variables, Type conversions, Operators, Methods and events, Scope and life time of variables, Creating Enumerations.

#### UNIT - III Control Structures

Control Structures: conditional statements, loops, arrays, types of methods, method data, creating Sub Procedures and Functions, MsgBox, Inputbox, Introduction to exception handling-try catch statement, finally statement, throw, user define Exception.

#### UNIT - IV GUI Programming


GUI Programming with window forms, Showing & hiding forms, Textbox, RichText box ,Lable, Button, Listbox, Combobox, Checkbox, PictureBox, Radio button, Toggle Button, Panel, Groupbox, Scrollbar, Timer, Dialog boxes, OpenFile Dialog, SaveFile dialog ,Print dialog, Font dialog, Color dialog, Designing menus and sub menus.

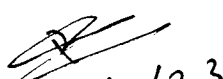
#### UNIT - V Database programming with ADO.net

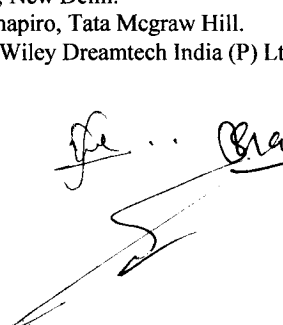
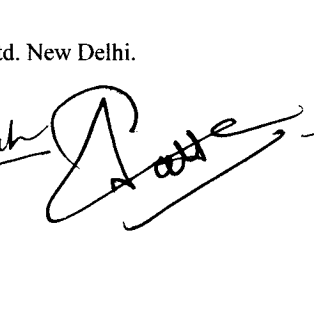
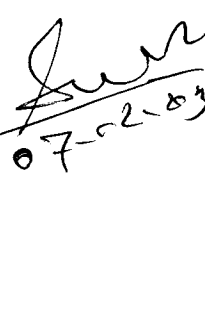
ADO .NET Architecture, .NET data provider, dataset components, creating database applications using Window forms (Database connectivity through ADO .NET), Accessing data using server explorer, Data Adapters & Data sets, Command & Data reader, data bind control, displaying data in data grid.

#### BOOKS RECOMMENDED

- ✓ MSDN online – by Microsoft
- ✓ Visual Basic .NET Complete - By BPB Publications, New Delhi.
- ✓ The Complete Reference VB .NET – By Jeffery R. Shapiro, Tata Mcgraw Hill.
- ✓ Professional VB .NET 2003 – by bill Evjen & others, Wiley Dreamtech India (P) Ltd. New Delhi.

  
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# Database Management Systems

## Subject Code - PGDCA-107

### Course Outcomes

- Students will be able to design a database based on the given requirements.
- Students will be able to make projects with knowledge of subject provided to them.
- Students will be able to write Standard Query Language statements.
- Students are expected to apply normalization techniques on given database.

### Syllabus

#### UNIT – I: Introduction To DBMS

Purpose of database systems, views of data, Data Modeling, Database Languages, Transaction Management, Storage Management, Database Administrator and User, Database System Structure.

#### UNIT – II: E-R Model

Entity - Relationship model as a tool for conceptual design-entities, attributes and relationships. ER diagrams; Concept of keys; Case studies of ER modeling Generalization; specialization and aggregation. Converting an ER model into relational Schema

#### UNIT – III: Relational Model

Structure to Relational Database, select, project, cross product different types of joins (inner join, outer joins, self-join); set operations, Tuple relational calculus, Domain relational calculus, Simple and complex queries using relational algebra, stand alone and embedded query languages.

#### UNIT – IV: Relational Database Design

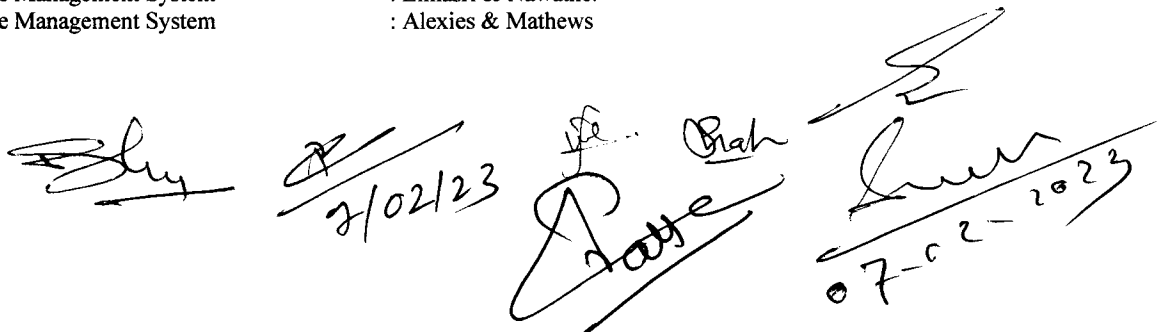
Normalization concept in logical model; Pitfalls in database design, update anomalies: Functional dependencies, Join dependencies, Normal forms (1NF, 2NF, 3NF). Boyce Codd Normal form, Decomposition, Multi-Valued Dependencies, 4NF, 5NF, De-Normalization.

#### UNIT – V: Introduction to RDBMS Software – SQL/Oracle

Introduction to personnel and Enterprises Oracle, Data Types, Commercial Query Language, SQL, SQL\* PLUS. **DDL and DML:** Creating Table, Specify Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting, Deleting and Updating Rows in as Table, Where Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries. Views: What is Views, Create, Drop and Retrieving data from views. **Security:** - Management of Roles, Changing Password, Granting Roles & Privilege, with drawing privileges.

### Recommended Books:

1. Data Base Systems : Silberschatz & Korth.
2. An Introduction to Data base System : C.J. Date
3. Data Base Management System : Raghu Ramakrishnan.
4. Data Base Management System : Elmasri & Nawathe.
5. Data Base Management System : Alexies & Mathews

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# INTERNET AND E-COMMERCE

Subject Code - PGDCA-108

## Course Outcomes

- Students will be familiar with various Internet protocols and the concepts of Internet.
- Students will be able to differentiate between various e-mail protocols and their working.
- Students will be familiar with the concept of remote login with the understandability of hosting and maintaining of website.
- Students will also get knowledge about Internet security and Firewalls.

## Syllabus

### UNIT – I

**Introduction to Internet:** Internet: Evolution, Concepts, Growth of Internet, ISP, ISP in India, Types of connectivity, Dial-up, leased line, DSL, Broadband, RF, VSAT etc., Methods of sharing of internet connection, Use of proxy server, Concept of Search Engines, Search engines types. searching the Web, Web Servers. E-Mail: Concepts of e-mailing, POP and WEB Based E-mail, merits, address, Basics of Sending & Receiving.

### UNIT – II

**E-Commerce:** Introduction to E-Commerce: Emergence of the Internet, Commercial use of the internet, Emergence of World Wide Web, Advantages and Disadvantages of ECommerce, Transition to E-Commerce in India, E-Commerce opportunities for Industries

### UNIT – III

**Business Models:** Business Models for E-commerce, Models based on Relationship of Transaction Brokerage Model, Aggregator Model, infomediary Model, and Community Model. Value Chain parties: B2C, B2B, C2C, C2B: Models based on Model, Manufacturer Model, Advertising Model. Subscription Model, Affiliate Model.

### UNIT – IV

**Dynamic HTML and Web Designing:** HTML Basic concepts, Web designing issue, Structure of HTML documents, HTML Elements: Core attributes, Language attributes, Core Events, Block Level Events, Text Level Events, Linking Basics, Linking in HTML, Images and Anchors, Anchor Attributes, Image Maps, Semantic Linking Meta Information, Image Preliminaries, Image Download issues, Images as Buttons, Introduction to Layout: Backgrounds, Colors and Text, Fonts, Layout with Tables, Introduction to CSS.

### UNIT – V

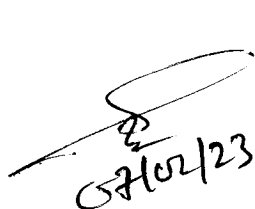
**E-Security:** Information system security, security on the internet, E-business Risk management issues, E-Payment Systems: Digital payment requirements, Secure Business, Web store, Online Payment, Internet Banking. Security-E-commerce security issues, Cryptography, Digital Signature & Authentication protocol, Digital Certificates, Secure Electronic Transaction (SET)

### Text Books:

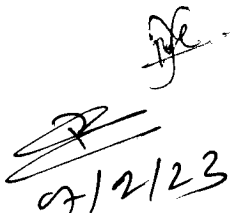
1. E - Commerce: Strategy, Technologies and Applications" by David Whiteley.
2. Internet for Every One, Alexis Leon and Mathews Leon, Tech World.2008 print.

### Reference Books:

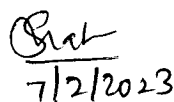
1. Introduction to Computers, P.K.Sinha, BPB Publication, 6th edition.
2. "Electronic Commerce: Framework, Technologies and Applications" by Bhasker.
3. HTML Complete Reference, Thomas A. Powell, TMH
4. Frontiers of Electronics of Commerce, Ravi kalakota & Andrew B. Whinston Addison Wesley, 1196

  
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## PGDCA-109: Practical based on PGDCA106

### 1. Scheme of Examination: -

Practical examination will be of 3 hours duration. The distribution of practical marks is as follows :

Program 1	-	20
Program 2	-	20
Program 3	-	20
Viva-Voice	-	20
[Practical Copy + Internal Record]	-	20
Total	-	100

2 In every program there should be comment for each coded line or block of code.

3 Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.

4 All the following programs or a similar type of programs should be prepared.

### Practical List

1. Design the form that calculates Sum, Multiplication, Division and Subtraction of two numbers.
2. Design Simple calculator.
3. Design the form to input radius of a circle and find its circumference and area.
4. Design the form to input length in centimeter and convert it into meter.
5. Design the form to input temperature in Celsius and convert it into Fahrenheit.
6. Design the form to input Principal amount, Time, Rate and calculate Simple Interest and Compound Interest show result information in msgbox.
7. Design a form that shows following operation related to array.
  - a) Sort array elements in ascending or descending order.
  - b) To insert an element in an array
  - c) To delete an element from an array at specified position.
  - e) Print all unique elements in the array.
8. Design a form to check whether a number is PRIME or NOT, using input box and msgbox.
9. Design the form to show the result and percent of PGDCA.
10. Design the following form. So when user clicks on Radio Button then select appropriate checkbox.

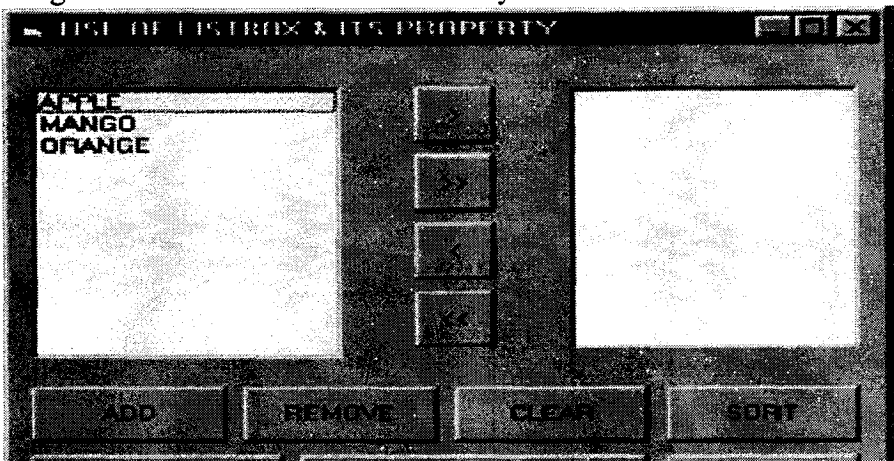
The screenshot shows a Windows application window titled "Use UI Option Buttons, Checkbox". The window contains a form with three main sections:

- Gender:** Two radio buttons are present. "Male" is selected, and "Female" is unselected.
- Age:** Three radio buttons are present. "Less Than 19" is selected, "19 to 40" is unselected, and "Over 40" is unselected.
- Rights:** Three checkboxes are present. "Drive Car" is unselected, "Can Drive Car" is unselected, and "All Rights" is unselected.

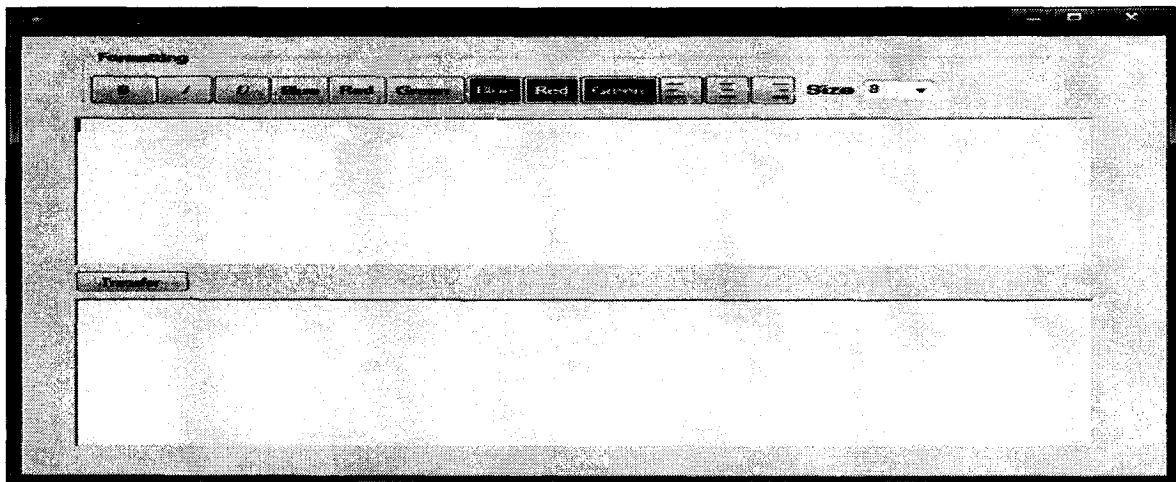
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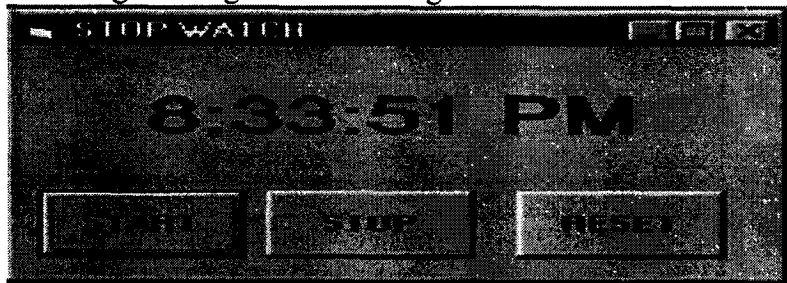
11. Design form that shows the functionality of listbox:



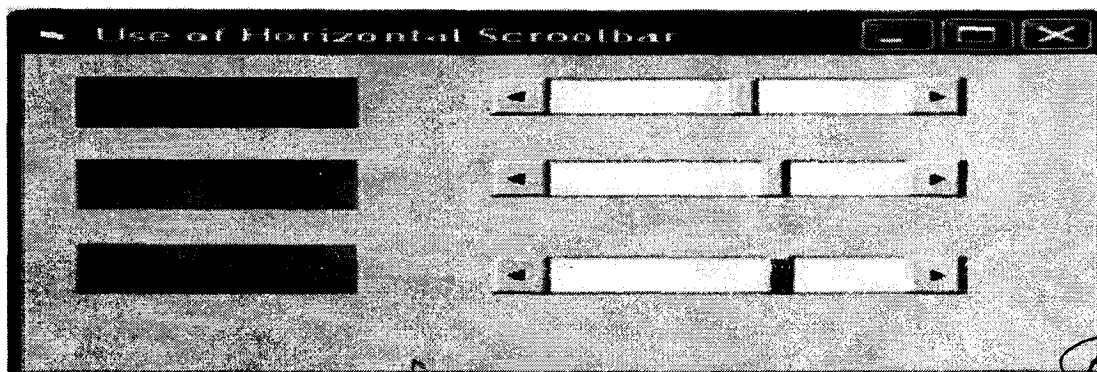
12. Design one form to create application like Rich text document using 1 Rich Textbox and different buttons. When user presses any of this command buttons then the selected content of Rich textbox Will be changed accordingly.



13. Design the digital watch using Timer Control.



14. Design the following form using horizontal scrollbar. In this, when user click on particular scroll bar then back color of shape will be changed to Red, Green & Blue color

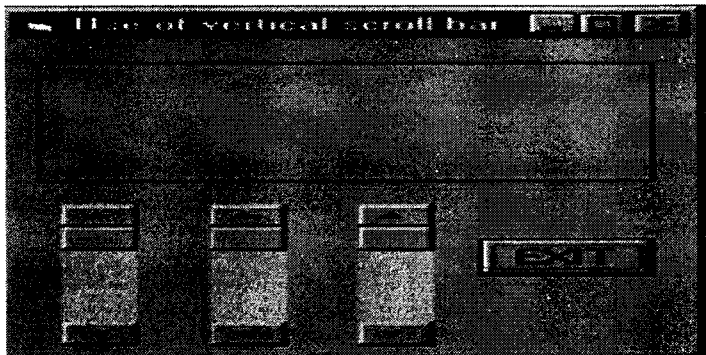


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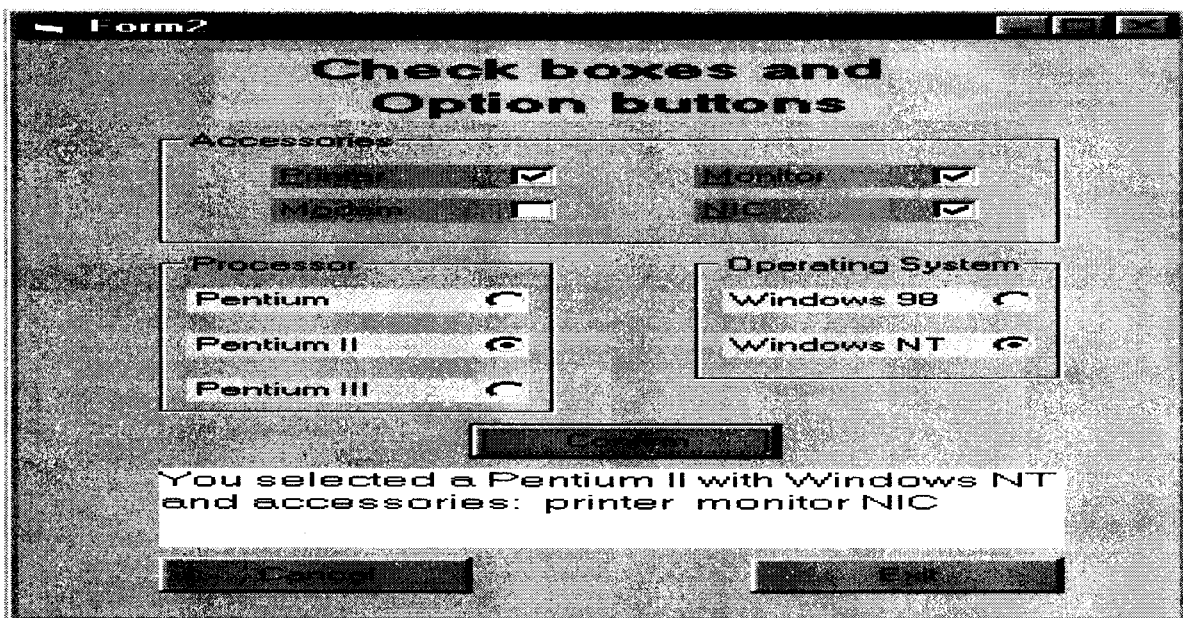
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15. Design the following form using vertical scrollbar. In this, when user click on particular scroll bar then back color of shape will be changed to Red, Green & Blue color



16. Design the form with different controls.



17. WAP for Exception handling of throwing an exception when dividing by zero condition occurs during arithmetic operation.

18. WAP in vb.net such that throw a user define exception when Temperature is zero.

19. WAP to demonstrate handling of multiple exceptions generated in program.

20. Create following table

Student(id, name, course, DOB, address)

Write vb.net application to

Add records

view all the records

Delete the particular record

View all the student who are studying in course PGDCA using DataSet.

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21. Write vb.net application to maintain loan database using connected scenario

Loan(id, cust\_num, name, amount, no\_of\_inst, amt\_inst, no\_of\_inst\_over)

Print all the customer who has to pay only one installment.

Print the total amount to be repaid by all the customer

22. Write vb.net application which accesses the following table.

Product\_master (pdt\_no, description, profit\_percent, uni\_measure, qty\_on\_hand, recorder\_level, cost\_price, sell\_price)

Perform insert, delete, view and search for items whose cost price is less than sell price.

23. Write a vb.net application that perform insert, update and delete operations on Employee table & perform a navigation operation on employee records using disconnected scenario.

24. Create table STUDENT with the following columns and datatypes.

Sid Alphanumeric  
Name Varchar(20)  
DOB DateTime  
Addr Varchar(20)  
Contact Varchar(10)

1. Insert following records into the table:

Sid	S1	S2	S3
Name	OshoJuneja	NishantSahni	SanyaDua
DOB	28-jan-93	1-oct-92	30-jul-94
Addr	ABC	XYZ	PQR
Contact	9000000000	8000000000	7800000000

ii) Select records from table where age > 22. [Use DOB for age calculation].

iii) Count the record in the table.

iv) Display records of the table order by DOB.

Perform using ADO.net in vb.net

25. Write a vb.net program to show data in data grid view.

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## Practical based on PGDCA107 and PGDCA-108

### 1. Scheme of Examination: -

Practical examination will be of 3 hours duration. The distribution of practical marks is as follows :

Program 1 (SQL)	-	15
Program 2 (SQL)	-	15
Program 3 (HTML)	-	15
Program 4 (HTML)	-	15
Viva-Voice	-	20
[Practical Copy + Internal Record]	-	20
<b>Total</b>	-	<b>100</b>

2 In every program there should be comment for each coded line or block of code.

3 Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.

4 All the following programs or a similar type of programs should be prepared.

### HTML

Q.1. Write an HTML program to create the following table:

Class	Subject1	Subject2	Subject3
BCA I	Visual Basic	PC Software	Electronics
BCA II	C++	DBMS	English
BCA III	Java	Multimedia	CSA

Q.2. Write an HTML program to create the following lists:

- (I) C
- (II) C++
- (III) Fortran
- (IV) COBOL

Q.3. Write an HTML program to create the following lists:

1. Java
2. Visual Basic
3. BASIC
4. COBOL

Q.4. Write an HTML program to demonstrate hyperlinking between two web pages. Create a marquee and also insert an image in the page.

Q.5. Write an HTML program to create frames in HTML with 3 columns (Width = 30%, 30% , 40%).

Q.6. Write an HTML program to create a web page with a blue background and the following text:

### New Delhi

*New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The refrains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.*

Q.7. Write an HTML program to create the following table:

#### Admission

Course	OC	BC	MBC	SC/ST	TOTAL
Computer science	9	18	5	5	37
Commerce	14	25	6	5	50
<b>Grand total</b>					<b>87</b>

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Q.8. Write an HTML program to create the following table:

**Car Price List**

Maruti		Tata		Ford	
Model	Price	Model	Price	Model	Price
Maruti 800	2 Lac	Sumo	2 Lac	Ikon	5 Lac
Omni	3 Lac	Scorpio	3 Lac	Gen	2 Lac

Q.9. Write an HTML program to create the following table:

**Students Records**

Name	Subject	Marks
Arun	Java	70
Varsha	C	80
Ashish	Java	75
Harsha	C	69

Q.10. Create an HTML document and embed a flash movie in it.

Q.11. Write the HTML coding to display the following table. Also insert an image in the web page.

Subject	Max	Min	Obtain
Java	100	33	75
Multimedia	100	33	70
Operating System	100	33	68
C++	100	33	73

Q.12. Write the HTML coding to display the following table:

<b>Name</b>		Rahul	
<b>Roll No.</b>		101	
<b>Subject</b>	<b>Max</b>	<b>Min</b>	<b>Obtain</b>
Java	100	33	75
Multimedia	100	33	70

Q.13. Write an HTML program to create a form as the following:

Enter Name:

Enter Roll No.:

Enter Age:

Enter DOB:

Q.14. Write an HTML program to create a web page with an image as background and the following text:

**New Delhi**

New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The refrains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.

On the other side New Delhi, the imperial city built by British, reflect the fast paced present. The most fascinating of all is the character of Delhi which varies from the 13<sup>th</sup> present century mausoleum of the Lodi kings to ultra modern glass skyscrapers.

Q.15. Create the following HTML form.

USERNAME:

PASSWORD:

When user types characters in a password field, the browser displays asterisks or bullets instead of characters.

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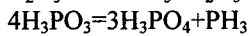
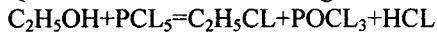
Q.16. Create the following HTML form.

FIRSTNAME :   
LASTNAME :   
  
GENDER :  
Male  Female   
  
SUBJECTS:   
Multimedia  
Operating System  
CSA

Q.17. Create the following HTML form.

Enter your name :   
Enter your rollno :   
  
Subjects :  
 Java  
 C  
 Visual Basic  
 C++  
  
Class:   
BCA II  
BCA III

Q.18. Write the HTML coding for the following equations:



Q.19. Write the HTML code to display the following:

1. Actors

- Bruce Willis
- Gerard Butler
- Vin Diesel
- Bradd Pitt

2. Actress

- Julia Roberts
- Angelina Jolie
- Kate Winslet
- Cameron Diaz

Q.20. Write the HTML code to display the following:

1. Cricket Players

- Batsman
- K.L.Rahul
- Rohit Sharma
- Virat Kohli

2. Bowler

- Bumrah
- R. Ashwin
- Chahar

3. Spinner

- Kuldeep
- Ravindra
- Chahal

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## SQL

### 1. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs (sid, sname, saddress, contacts)  
StaffJoins ( sid, cname, dept, DOJ, post, salary)  
Teachings ( sid, class, paperid, fsession, tsession)  
Subjects ( paperid, subject, paperno, papername)

**Write SQL statements for the following –**

- Create the above tables with the given specifications and constraints.
- Insert about 10 rows as are appropriate to solve the following queries.
- List the names of the teachers teaching computer subjects.
- List the names and cities of all staff working in your college.
- List the names and cities of all staff working in your college who earn more than 15,000

### 2. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs (sid, sname, saddress, contacts)  
StaffJoins ( sid, cname, dept, DOJ, post, salary)  
Teachings ( sid, class, paperid, fsession, tsession)  
Subjects ( paperid, subject, paperno, papername)

**Write SQL statements for the following –**

- Find the staffs whose names start with 'M' or 'R' and ends with 'A' and/or 7 characters long.
- Find the staffs whose date of joining is 2005.
- Modify the database so that staff N1 now works in C2 College.
- List the names of subjects, which T1 teaches in this session or all sessions.
- Find the classes that T1 do not teach at present session.

### 3. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs (sid, sname, saddress, contacts)  
StaffJoins ( sid, cname, dept, DOJ, post, salary)  
Teachings ( sid, class, paperid, fsession, tsession)  
Subjects ( paperid, subject, paperno, papername)

**Write SQL statements for the following –**

- Find the colleges who have most number of staffs.
- Find the staffs that earn a higher salary who earn greater than average salary of their college.
- Find the colleges whose average salary is more than average salary of C2
- Find the college that has the smallest payroll.
- Find the colleges where the total salary is greater than the average salary of all colleges.

### 4. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs (sid, sname, saddress, contacts)  
StaffJoins ( sid, cname, dept, DOJ, post, salary)  
Teachings ( sid, class, paperid, fsession, tsession)  
Subjects ( paperid, subject, paperno, papername)

**Write SQL statements for the following –**

- List maximum, average, minimum salary of each college
- List the names of the teachers, departments teaching in more than one department.
- Acquire details of staffs by name in a college or each college.
- Find the names of staff that earn more than each staff of C2 College.
- Give all principals a 10% rise in salary unless their salary becomes greater than 20,000 in such case give 5% rise.

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5. Using the following database,

Colleges (cname, city, address, phone, afdate)  
Staffs (sid, sname, saddress, contacts)  
StaffJoins (sid, cname, dept, DOJ, post, salary)  
Teachings (sid, class, paperid, fsession, tsession)  
Subjects (paperid, subject, paperno, papename)

Write SQL statements for the following –

- Find all staff that do not work in same cities as the colleges they work.
- List names of employees in ascending order according to salary who are working in your college or all colleges.
- Create a view having fields sname, cname, dept, DOJ, and post
- Create a view consisting of cname, average salary and total salary of all staff in that college.
- Select the colleges having highest and lowest average salary using above views.
- List the staff names of a department using above views.

6. Using the following database,

Enrollment (enrollno, name, gender, DOB, address, phone)  
Admission (admno, enrollno, course, yearsem, date, cname)  
Colleges (cname, city, address, phone, afdate)  
FeeStructure (course, yearsem, fee)  
Payment (billno, admno, amount, pdate, purpose)

Write SQL statements for the following –

- Create the above tables with the given specifications and constraints.
- Insert about 10 rows as are appropriate to solve the following queries.
- Get full detail of all students who took admission this year class wise
- Get detail of students who took admission in Bhilai colleges.
- Calculate the total amount of fees collected in this session
  - By your college
  - by each college
  - by all colleges

7. Using the following database,

Enrollment (enrollno, name, gender, DOB, address, phone)  
Admission (admno, enrollno, course, yearsem, date, cname)  
Colleges (cname, city, address, phone, afdate)  
FeeStructure (course, yearsem, fee)  
Payment (billno, admno, amount, pdate, purpose)

Write SQL statements for the following –

- List the students who have not payed full fee
  - in your college
  - in all colleges
- List the number of admissions in your class in every year.
- List the students in the session who are not in the colleges in the same city as they live in.
- List the students in colleges in your city and also live in your city.
- Delete all the records of student who live in city Raipur.

8. Subjects (paperid, subject, paper, papename)

Test (paperid, date, time, max, min)  
Score (rollno, paperid, marks, attendance)  
Students (admno, rollno, class, yearsem)

Write SQL statements for the following –

- Create the above tables with the given specifications and constraints.
- Insert about 10 rows as are appropriate to solve the following queries.
- List the students who were present in a paper of a subject.
- List all roll numbers who have passed in first division.
- List all students in BCA-II who have scored higher than average
  - in your college
  - in every college

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07.2.23

*07/02/23*

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07/02/23

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