# P.G.D.C.A. Semester – II

## DCA - 201 : Advanced Programming Language 'C'

| Teaching Scheme (per week) | | Teaching Scheme (per semester) | | Examination Scheme | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | External | | Total | |
| Th. (Hours) | Pr. (Hours) | Total (Hours) | Credit | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) |
| 4 | --- | 40 | 4 | 30 | ---- | 70 | --- | 100 | --- |

| | | |
|---|---|---|
| **Unit – I** | | **[17 Marks]** |
| | **User-Defined Functions:**<br>Introduction, Need for user-defined functions, The form of C function, Return values and their types, Calling a function, category of functions, No arguments and no return values, Argument with no return values, Arguments with return values, Handling of non-integer functions, Nesting of functions, Recursion, Functions with arrays, The scope and Lifetime of variables in functions | |
| **Unit – II** | | **[18 Marks]** |
| | **Structures and Unions:**<br>Introduction, Structure definition, Giving values to members, Structure initialization, Comparison of structures variables, Arrays of structures, Arrays within structures, Structures within Structures, Structures and functions, Unions.[1] | |
| **Unit – III** | | **[17 Marks]** |
| | **Pointers:**<br>Introduction, Understanding pointers, Accessing the address of a variable, Declaring and initializing pointers, Accessing a variable through its pointer, Pointer expressions, Pointer increments and scale factor, Pointers and arrays, Pointers and character strings, Pointers and Functions, Pointers and structures. | |
| **Unit – IV** | | **[18 Marks]** |
| | **File Management in C:**<br>Introduction, Defining and opening a file, Closing a file, Input / Output operations on files, Error handling during I/O operations, Random access files, Command line arguments.<br>**Dynamic Memory Allocation**<br>Introduction, Dynamic Memory allocation, Memory allocation functions | |

**Text Book:**


1. **Programming in ANSI C**, Balagurusamy, Tata McGraw-Hill


1

**Reference Books:**


1. Programming in C, by Pradip Dey & Manas Ghosh, Publisher – Oxford
2. The Complete Reference, Herbert schildt Fourth Edition
3. Let Us C , Yashwant Kanetkar, BPB Publications
4. Programming in C, by Reena thareja Publisher – Oxford


## Question Paper Scheme:

## University Examination Duration : 3 Hours.

Q.1 - Unit-I (12 Marks)
Descriptive/ Long questions.
Q.2 - Unit-II (12 Marks)
Descriptive/ Long questions.
Q.3 - Unit-III (12 Marks)
Descriptive/ Long questions.
Q.4 - Unit-IV (12 Marks)
Descriptive/ Long questions.
Q.5 -
A. Unit I ,II,III and IV – Objectives Questions (12 Marks)
B. Program related to syllabus of above subject (10 Marks)

Note: Options should be given in all questions.

# P.G.D.C.A. Semester – II

## DCA - 202 : Advance Database Management System

| Teaching Scheme (per week) | | Teaching Scheme (per semester) | | Examination Scheme | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | External | | Total | |
| Th. (Hours) | Pr. (Hours) | Total (Hours) | Credit | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) |
| 4 | --- | 40 | 4 | 30 | ---- | 70 | --- | 100 | --- |

| Unit – I | [17 Marks] |
|---|---|
| **Concepts of transaction and transaction processing**<br>ACID properties of transaction<br>Examples of transaction<br>**Database concurrency**<br>Problems of concurrency<br>Concepts of two-phase locking<br>Concept of Deadlocks<br>**Database recovery**<br>Types of Recovery | |
| **Unit – II** | **[18 Marks]** |
| **Introduction to SQL**<br>SQL Components<br>DDL<br>DML<br>DCL<br>TCL<br>SQL constructs (SELECT… FROM…WHERE...GROUP BY….<br>HAVING….ORDER BY…)<br>**SQL Functions**<br>String Functions<br>Conversion Functions<br>Numeric Functions<br>Aggregate Functions<br>**Set Operators**<br>Union<br>Intersect<br>Minus<br>VIEW definition and use<br>Nested queries/ Sub Queries<br>Correlated nested Queries<br>**Joins**<br>Inner Join/ Simple Join<br>Outer Join<br>Left Outer<br>Right Outer<br>Full<br>Self-Join<br>Cross Join<br>JOINs based on Operators | |

| | | |
|---|---|---|
| | Equi Join<br>Non- Equi Join<br>**Integrity constraints and its types( Domain, Entity, Referential)** | |
| **Unit – III** | | **[17 Marks]** |
| | **PL\SQL-Introduction**<br>Datatypes<br>Syntax<br>Block Structures<br>Conditional Control in PL\SQL<br>Cursors<br>Explicit<br>Implicit<br>Error Handling in PL\SQL | |
| **Unit – IV** | | **[18 Marks]** |
| | **Database Objects**<br>Procedure<br>Function<br>Trigger<br>Index<br>Sequence | |

**Text & Reference Books:**

1. Introduction to Database System - C. J. Date (7th edition) Low Price Edition
2. SQL, PL/SQL - Evan Bayross (2nd edition) BPB

## Question Paper Scheme:

## University Examination Duration : 3 Hours.

Q.1 - Unit-I (12 Marks)
Descriptive/ Long questions.
Q.2 - Unit-II (12 Marks)
Descriptive/ Long questions.
Q.3 - Unit-III (12 Marks)
Descriptive/ Long questions.
Q.4 - Unit-IV (12 Marks)
Descriptive/ Long questions.
Q.5 -
A. Unit I and II – Objectives/Short Questions (12 Marks)
B. Unit III and IV – Objective/Short Questions (10 Marks)

Note: Options should be given in all questions.

# P.G.D.C.A. Semester – II

## DCA - 203 : GUI Programming using Visual Basic

| Teaching Scheme (per week) | | Teaching Scheme (per semester) | | Examination Scheme | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | External | | Total | |
| Th. (Hours) | Pr. (Hours) | Total (Hours) | Credit | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) |
| 4 | --- | 40 | 4 | 30 | ---- | 70 | --- | 100 | --- |

| | | |
|---|---|---|
| **Unit – I** | | **[17 Marks]** |
| | **Introduction to Visual Basic, Introduction to VB Controls**<br>Introduction Graphical User Interface (GUI), Programming Language (Procedural, Object Oriented, Event Driven), The visual Basic Environment, **Visual Basic Building Blocks And Default Controls:** Forms, Using Controls, Exploring Properties, Methods And Events, Introduction To Intrinsic Controls, Working With Text, Working With Choices, Special Purpose Controls<br>**Introduction to Variables/Data types :** Types of Variable/ data type Declaration, Rules for variable declaration, Introduction to Constants | |
| **Unit – II** | | **[18 Marks]** |
| | **VB Programming Fundamentals:** Assignment Statements, Working With Math Operations, Strings, Formatting Functions.<br>**Controlling And Managing Program**: All Control Statements, Loops, Working With Procedures, Functions.<br>**Common controls and control arrays:** Introduction to common controls- Tree view, list view, Creating and working with control arrays.<br>**VB Advance Controls:** Events, Menu bar, Popup Menus, Tool bar, Message Box, Input Box, Built in Dialog Boxes, Creating MDI, Working with Menus. | |
| **Unit – III** | | **[17 Marks]** |
| | **Visual Basic and databases (DAO,ADO,RDO):** Understanding the Data Controls And Bound Controls, Introduction to Data Form Wizard, Introduce DAO, Working With Record sets, Record Pointer, Filters, Indexes, Sorts And Manipulation of Records. **Remote And ActiveX Data Objects:** Working With ODBC, Remote Data Objects And Remote data Control, Introducing ADO, ADO Data Control, Using Data Grid Control And ActiveX Data Objects. | |
| **Unit – IV** | | **[18 Marks]** |
| | **Client-Server Development Tools:** COM, Services Models, Development Tools Included with VB 6, Working With SourceSafe Projects. **Reports and Packaging:** Data Reports and Crystal Reports, Packaging A Standard EXE Project. | |

**Text & Reference Books:**


1. Visual Basic 6 Client/Server How-To, JARKE (TACHMEDIA)
2. Using Visual Basic 6, SILER (TMH) Question

## Question Paper Scheme:

## University Examination Duration : 3 Hours.

Q.1 Descriptive / Long questions. (12 Marks )

Q.2 Descriptive / Long questions. (12 Marks )

Q.3 Descriptive / Long questions. (12 Marks )

Q.4 Descriptive / Long questions. (12 Marks )

Q.5 -
A. Unit I ,II,III and IV – Objectives/Short Questions (12 Marks)
B. Program related to syllabus of above subject (10 Marks)

Note: Options should be given in all questions.

# P.G.D.C.A. Semester – II

## DCA - 204: Electronic Commerce (E-Commerce)

| Teaching Scheme (per week) | | Teaching Scheme (per semester) | | Examination Scheme | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | External | | Total | |
| Th. (Hours) | Pr. (Hours) | Total (Hours) | Credit | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) |
| 4 | --- | 40 | 4 | 30 | ---- | 70 | --- | 100 | --- |

| | | |
|---|---|---|
| **Unit – I** | | **[17 Marks]** |
| | Introduction to E – Commerce, Pure Vs Partial E-Commerce, History and Development (Evolution) of E-Commerce , Difference between traditional commerce and e-commerce, Advantages and Limitations, E – Commerce – Indian Scenario/E– commerce in India, Various Technologies of E-Commerce, Future of E-Commerce | |
| **Unit – II** | | **[18 Marks]** |
| | Types of E-commerce and Electronic Data Inter-change (EDI), Driving Forces of E-Commerce, **Introduction Various Model of E-Commerce :** B2C, B2B, C2B, C2C, B2G and G2C, **Electronic Data Inter-change (EDI)** – Concept, Meaning & Definition, Features and Benefits. **Network Security(Only Concepts):** Firewalls, IP security, Virtual Private Networks ,HTTPs, SSL, SETP | |
| **Unit – III** | | **[17 Marks]** |
| | E – Payments and Security: A brief overview of the following: Credit card ,Debit card, Smart Card (Electronic Credit Card),EFT ,E–wallet, e-check and e-cash, Payment Gateway ,Security in cyberspace – Kinds of threats and crimes, Credit Card Frauds and Internet security using VPN and firewalls. | |
| **Unit – IV** | | **[18 Marks]** |
| | **Technology in E – Commerce:** Networking – Concept, Meaning and Features, Classification of Networks: LAN, WAN, Internet, Intranet and Extranet (Concept, Meaning and Benefits), Virtual Private Networks (VPNs) – Overview, **Recent Trends in E – Commerce:** M–commerce – Introduction, growth and future, advantages and limitations , Introduction and management of e–enterprises, Ethical issues in e-commerce. | |

**Text & Reference Books:**


1. Web Commerce Technology Hand Book by: Daniel Minoli, Emma Minoli
2. Internet and Web designing by Rajesh Maheta, Ronak patel,Rajendra patel and Shyam Chavda (Nirav Prakashan),1st Edition.
3. E-commerce by Bhadresh Patel, Bharat Publication
4. E – Commerce by Mamta Bhusry, Firewall Media
5. Cryptography & Network Security by Atul Kahate (Tata McGraw Hill)

**Question Paper Scheme:**

**University Examination Duration : 3 Hours.**

Q.1 Descriptive / Long questions. (12 Marks )

Q.2 Descriptive / Long questions. (12 Marks )

Q.3 Descriptive / Long questions. (12 Marks )

Q.4 Descriptive / Long questions. (12 Marks )

Q.5 -

A. Unit I and II – Objectives/Short Questions (12 Marks)
B. Unit III and IV – Objective/Short Questions (10 Marks)

Note: Options should be given in all questions.

# P.G.D.C.A. Semester – II

## DCA-205 : Practical Based on DCA - 201 (Advance-C)

| Teaching Scheme (per week) | | Teaching Scheme (per semester) | | Examination Scheme | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | External | | Total | |
| Th. (Hours) | Pr. (Hours) | Total (Hours) | Credit | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) |
| ---- | 4 | 40 | 4 | ---- | 30 | ---- | 70 | ---- | 100 |

## (Practical List)

1. Write a program to check the no. is Palindrome or not using UDF.S
2. Write a program to find factorial of given no using UDF.
3. Write a program to find factorial of given no using recursion.
4. Write a program to display first 25 terms of Fibonacci series using recursion.
5. Write a program to swap value of two integer number using UDF
6. Write a function prime that returns 1 if its argument is a prime and return zero Otherwise.
7. Write a program that will scan a character string passed as an argument and convert all Lowercase character into their uppercase equivalents using UDF.
8. Write a program that uses a UDF to sort an array of integer.
9. Write a program to search a number within an array using UDF.
10. Write a program which explains the use of nesting of functions.
11. Define a structure personal which contains person name, date of joining and salary . Develop the program to read this information for 5 persons and print the same on the screen.
12. Define a structure student which contains roll_no, name and total marks obtained. Develop a program to read information for 10 students in a class and print them on the screen.
13. Write a program using structure within structure.
14. Define a structure called cricket that will describe the following information .
    Player name, Team name and runs.
    Using cricket, declare an array player with 10 elements and write a program to read the information about all 10 players and print a team-wise list containing names of players with their runs.
15. Write a program to print the value and address of the element.
16. Write a program to accept 10 numbers and display its sum using pointer.
17. Write a program to accept 10 numbers and sort them with use of pointer.
18. Write a program to swap the two values using pointers and UDF.
19. Write a program with structure and pointer.
20. Write a program using pointer to determine the length of a character string. 21. Write a program using pointers to read an array of integers and print its elements in reverse order.
22. Write a C program to Create one text file , store some information into it and print the same information on the screen.
23. A file named data contains series of integer no. Write a c program to read that no. and then Write all odd no into file named odd no. and write all even no into file named even no. Display all the contents of these file on screen.
24. Write a c program to input employee no, employee name and basic and to Store output into empdata file in following format.

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A/c Department

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| Emp-No | Name | Basic | DA | HRA | MA | PF | GROSS | NET-PAY |
|---|---|---|---|---|---|---|---|---|
| 1 | xyz | 5000 | 2500 | 500 | 100 | 500 | 8100 | 7600 |
| 2 | | | | | | | | |
| 3 | | | | | | | | |

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DA = 50% of Basic
HRA =10% of Basic
MA = 100
PF = 10% of Basic
GROSS = BASIC + DA + HRA + MA
NET-PAY = GROSS – PF

25. Write a c program to read empdata file which is created in practical-24. And display all information on the screen.
26. Write a program using fseek and ftell functions.
27. Write a program to work as a dos copy con command using command line argument.
28. Write a C program to work as a dos type command using command line argument.
29. Write a C program to work as a dos copy command using command line argument.
30. Write programs which explain the use of memory allocation functions.

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## Practical Exam Scheme:

| Practical | Viva | Journal | Total |
|---|---|---|---|
| 40 Marks | 20 Marks | 10 Marks | 70 Marks |

## Reference Books:


1. Programming in C, by Pradip Dey & Manas Ghosh, Publisher – Oxford
2. The Complete Reference, Herbert schildt Fourth Edition
3. Let Us C , Yashwant Kanetkar, BPB Publications
4. Programming in C, by Reena thareja Publisher – Oxford
5. Programming in ANSI C, Balagurusamy, Tata McGraw-Hill

# P.G.D.C.A. Semester – II

## DCA-206: Practical Based on DCA - 202 (PL/SQL)

| Teaching Scheme (per week) | | Teaching Scheme (per semester) | | Examination Scheme | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | External | | Total | |
| Th. (Hours) | Pr. (Hours) | Total (Hours) | Credit | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) |
| ---- | 4 | 40 | 4 | ---- | 30 | ---- | 70 | ---- | 100 |

## (Practical List)

**Create following Three Tables.**

**1. Salesman**

| SNUM | SNAME | CITY | COMMISSION |
|---|---|---|---|
| 1001 | PIYUSH | LONDON | 12% |
| 1002 | NIRAJ | SURAT | 13% |
| 1003 | MITI | LONDON | 11% |
| 1004 | RAJESH | BARODA | 15% |
| 1005 | ANAND | NEW DELHI | 10% |
| 1006 | RAM | PATAN | 10% |
| 1007 | LAXMAN | BOMBAY | 09% |

SNUM : A Unique number assign to each salesman.
SNAME : The name of salesman.
CITY : The location of salesman.
COMMISSION : The percentage of salesman commission on order.

**2. Customer**

| CNUM | CNAME | CITY | RATING | SNUM |
|---|---|---|---|---|
| 2001 | HARDIK | LONDON | 100 | 1001 |
| 2002 | GITA | ROME | 200 | 1003 |
| 2003 | LAXIT | SURAT | 200 | 1002 |
| 2004 | GOVIND | BOMBAY | 300 | 1002 |
| 2005 | CHANDU | LONDON | 100 | 1001 |
| 2006 | CHAMPAK | SURAT | 300 | 1007 |
| 2007 | PRATIK | ROME | 100 | 1004 |

CNUM : A Unique number assign to each customer.
CNAME : The name of customer.
CITY : The location of customer.
RATING : A level of preference indicator given to this customer.
SNUM : A salesman number assign to this customer.

**3. Order**

| ONUM | AMOUNT | ODATE | CNUM | SNUM |
|---|---|---|---|---|
| 3001 | 18.69 | 10/03/99 | 2006 | 1007 |
| 3002 | 767.19 | 10/03/99 | 2001 | 1001 |
| 3003 | 1900.10 | 10/03/99 | 2007 | 1004 |
| 3004 | 5160.45 | 10/03/99 | 2003 | 1002 |
| 3005 | 1098.25 | 10/04/99 | 2006 | 1007 |
| 3006 | 1713.12 | 10/04/99 | 2002 | 1003 |
| 3007 | 75.75 | 10/05/99 | 2004 | 1002 |
| 3008 | 4723.00 | 10/05/99 | 2005 | 1001 |
| 3009 | 1309.95 | 10/05/99 | 2004 | 1002 |
| 3010 | 9898.87 | 10/06/99 | 2001 | 1001 |

ONUM : A Unique number assign to each Order.
AMOUNT : Amount of order in Rs.
ODATE : The date of order.
CNUM : The number of customer making the order.
SNUM : The number of salesman credited with the sale.

**Solve following request with the help of SQL query.**

| | |
|---|---|
| 1 | Produce the order no, amount and date of all orders. |
| 2 | Give all the information about all the customers with salesman number 1001. |
| 3 | Display the information in the sequence of city, sname, snum, and Commission. |
| 4 | List of snum of all salesmen with orders in order table without duplicates. |
| 5 | List of all orders for more than Rs. 1000. |
| 6 | List out names and cities of all salesmen in London with commission above 10% |
| 7 | List all customers excluding those with rating <= 100 or they are located in Rome. |
| 8 | List all order for more than Rs. 1000 except the orders of snum,1006 of 10/03/99 |
| 9 | List all orders taken on 10th March, April and June 1999. |
| 10 | List all customers whose names begin with a letter 'C'. |
| 11 | List all customers whose names begins with letter 'A' to 'G' |
| 12 | List all orders with zero or NULL amount. |
| 13 | Find out the largest orders of salesman 1002 and 1007. |
| 14 | Calculate the Average and Sum of amount ordered. |
| 15 | Count the no. of salesmen currently having orders. |
| 16 | Find the largest order taken by each salesman on each date. |
| 17 | Find out each customer's smallest order. |
| 18 | Find out the customer in alphabetical order whose name begins with 'G' |
| 19 | Display the no. of order for each day in the following format. There are "X"( No. of Orders) Orders on "Y"(Date in dd-mon-yy ). |
| 20 | Assume each salesperson has a 12% commission. Write a query on the order table that will Produce the Order number, salesman no and amount of commission for that order. |
| 21 | List all customers in descending order of rating. |
| 22 | Show the name of all customers with their salesman's name. |
| 23 | List all orders with the names of their customer and salesman. |
| 24 | List all orders by the customers not located in the same city as their salesman. |
| 25 | List all customers serviced by salesman with commission above 12%. |
| 26 | Find all pairs of customers having the same rating with out duplication. |
| 27 | List all customers located in cities where salesman Niraj has customers. |
| 28 | List all salesmen who are living in the same city without duplicate rows. |
| 29 | Produce the name and city of all the customers with the same rating as Hardik'. |
| 30 | Extract all orders of Miti. |

| | |
|---|---|
| 31 | Find all orders of the salesman who services 'Hardik' |
| 32 | List all orders that are greater than the average of April 10, 1999 |
| 33 | Count the no. of customers with the rating above than the average rating of 'Surat'. |
| 34 | Using correlated sub query find the name and number of all customer with rating equal to Maximum for their city. |
| 35 | Find all customers having rating greater than any customer in 'Rome'. |
| 36 | Find all the customers who have greater rating than every customer in 'Rome'. |
| 37 | Select all customers whose rating doesn't match with any rating customer of 'Surat'. |
| 38 | Create a union of two queries that shows the names, cities and ratings of all customers. Those with rating of >=200 should display 'HIGH RATING' and those with < 200 should Display 'LOW RATING' |
| 39 | Insert a row into salesmen table with the values snum is 1008 salesman name is Rakesh, City is unknown and commission is 14%. |
| 40 | Insert a row in to customer table with values London, Pratik a 2008 for the columns city, Name and number. |
| 41 | Create another table London staff having same structure as salesman table. |
| 42 | Insert all the rows of salesmen table with city London in the London staff table. |
| 43 | Create another table Day totals with two attributes date and total and insert rows into this Table from order table. |
| 44 | Remove all orders from customer Chandu. |
| 45 | Increase the rating of all customers in Rome by 100. |
| 46 | Double the commission of all salesmen of London. |
| 47 | Delete the salesmen who produce the lowest order for each day. |
| 48 | Delete all customers with no current orders. |
| 49 | Write a command to add the item-name column to the order table. |
| 50 | Give the commands to create our sample tables (salesmen, customer, orders) with all the Necessary constraints like PRIMARY KEY, NOT NULL UNIQUE, FOREING KEY. |
| 51 | Create a view called Big orders which stores all orders larger than Rs.4000. |
| 52 | Create a view that shows all the customers who have the highest ratings. |
| 53 | Create a view that shows all the number of salesman in each city. |
| 54 | Create a view that shows the average and total orders for each salesmen after his name And number. |
| 55 | Create a view Show name that shows for each order the order no, amount, salesman name And the customer name. |

## Practical Exam Scheme:

| Practical | Viva | Journal | Total |
|---|---|---|---|
| 40 Marks | 20 Marks | 10 Marks | 70 Marks |

## Reference Books:

1. Introduction to Database System - C. J. Date (7th edition) Low Price Edition
2. SQL, PL/SQL - Evan Bayross (2nd edition) BPB
    1.

## P.G.D.C.A. Semester – II

## DCA-207: Practical Based on DCA - 203 (GUI VB)

| Teaching Scheme (per week) | | Teaching Scheme (per semester) | | Examination Scheme | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | External | | Total | |
| Th. (Hours) | Pr. (Hours) | Total (Hours) | Credit | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) |
| ---- | 4 | 40 | 4 | ---- | 30 | ---- | 70 | ---- | 100 |

## (Practical List)

1. Write a program to calculate the sum of 100 natural numbers.
2. Write a program to display 'hello' in the text box when you click display hello button.
3. Write a Program to Perform Stop Watch Using Timer Control
4. Write a draw program using mouse events.
5. Write a program to implement the concept of common dialog control
6. Write a dialogs program using the msgbox () function to display various buttons in dialog boxes.
7. Write a Program Using Input Box Function.
8. Write a points program, which draws points at random, locations in a form.
9. Write a program that let's you to use different types of shapes.
10. Write a program to display two common dialog boxes the color selection and the open file dialog box.
11. Write a Program Using Treeview Control.
12. Write a Program to Set Directory List Box , Drive List Box , and File List Box
13. Write a program that includes three file system control in it. You can use it to select a file from a drive and display the size of the selected file.
14. Write a Program to Making Calculator Using Control Array
15. Write a program to create random access file (the program lets you maintain a database file called phone.dat that keeps records of people and their phone numbers.
16. Write a Program to Create Status Bar and Toolbar Control
17. Write a program in which the application provides convert exchange rate table for converting between u.s.dollor and the local currency of a selected country. To operate the program you simply pull down the country list and select a name.
18. Write a Program Using Flex Grid Control.
19. Write a VB program with the use of multiple document interface by which you can access any of multiple windows. In these windows you can place any picture or text or any other documents.
20. Write a VB program by which you can add, delete, modify, view the data from any table of access database with proper validation. For this operation you can use data controls and data manager.
21. Write a Program Using DAO Data Control. (DATA1) and its Operation.
22. Write a Program Using DAO using reference and its Operation and also generate data report.
23. Write a Program Using ADO Data Control. (ADODC1) and its Operation.

**24.** Write a Program Using ADO using reference and its Operation and also generate data report.

**25.** Write a Program Using RDO Data Control. (MSRDC1) and its Operation.

**26.** Write a Program Using RDO using reference and its Operation and also generate data report.

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## Practical Exam Scheme:

| Practical | Viva | Journal | Total |
|---|---|---|---|
| 40 Marks | 20 Marks | 10 Marks | 70 Marks |

## Reference Books:

1. Visual Basic 6 Client/Server How-To, JARKE (TACHMEDIA)
2. Using Visual Basic 6, SILER (TMH) Question

# P.G.D.C.A. Semester – II

## DCA-208: Computer Assembling and Hardware Maintenance

| Teaching Scheme (per week) | | Teaching Scheme (per semester) | | Examination Scheme | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | External | | Total | |
| Th. (Hours) | Pr. (Hours) | Total (Hours) | Credit | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) | Th. (Marks) | Pr. (Marks) |
| ---- | 4 | 40 | 4 | ---- | 30 | ---- | 70 | ---- | 100 |

## (Practical List)

**1) Introduction and Function of parts related to computer.**

1. Power Supply Unit.
2. Motherboard
3. Central Processing Unit with heat sink.
4. Other Chipset.
5. RAM - Random Access Memory & ROM - Read Only Memory.
6. BIOS - Basic Input / Output System.
7. CMOS IC.
8. Different types of Buses (ISA & PCI) and Connectors.
9. Different types of I/O Ports.
10. Jumpers.
11. Display Card.
12. HDD - Hard Disk Drive.
13. FDD - Floppy Disk Drive.
14. CD-ROM Disk & Disk Drive.
15. DVD - Digital Versatile Disk.
16. NIC - Network Interface Card.
17. Sound Card.
18. Other Add-ON Cards.
19. Keyboard & Mouse.
20. MODEM.
21. Printers & Plotters
22. Scanner
23. Different types of Computer batteries.
24. Different types of Screws.

**2. Operating System Fundamentals.**

1. To identify the basic feature of different types of Operating System (Describe any 2 to 3 operating system for reference).

**3. Computer Assembling and Configuration Assembling:**

1. Hardware Fundamentals.
a. Function of Computer.
b.To identify the different parts of computer and peripherals.

2. Assemble of computer.
a. Collect the proper/required computer parts and tools.
b. Sequence steps to assemble a computer as per guidelines provided by the

expert.
c. Steps for upgrading a computer system.

**4. Operating System Installation and Configuration.**

1. Select the operating system
2. Start installation as per guidelines provided by the expert.
3. Configure/install peripherals and its device drivers.

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## Practical Exam Scheme:

| Written description of function and detail of computer Spare parts(any three) from syllabus | Viva | Journal | Total |
|---|---|---|---|
| 40 Marks | 20 Marks | 10 Marks | 70 Marks |

## Reference Books:


1. Comdex computer Hardware-Networking-Course BY Vikas Gupta (Dreamtech Press)
2. Computer Desktop Encyclopedia, Alan Freedman, Osborne/McGraw-Hill; 9th edition (September 24, 2001); eBook (2014, Updated Continuously)
3. PC Architecture, Michael Karbo, Know Ware - Competence Micro (September 2, 2002); eBook (karbosguide.dk, 2006)
4. Build a Computer from Scratch, Jeff Heaton, Heaton Research, Inc. (June 14, 2006)


## Website:

http://www.freebookcentre.net/Hardware/Free-Computer-Hardware-Books.html

**AND/OR**

Any other E-book resource/ Website resources that includes the any contents of the syllabus.