

DIPLOMA IN COMPUTER APPLICATION (DCA)

Course Code: - 113

Duration: 12 months

1ST SEMESTER

PAPER (THEORY)	NAME	MAXIMUM MARKS	PAPER (PRACTICAL)	NAME	MAXIMUM MARKS
DCL5T101	Introduction to computer & Operating system	70	DCL5P104	PRACTICAL	60
DCL5T102	MS Office 2013	70	DCL5P105	PRACTICAL	30
DCL5T103	Programming Language	70			

2ND SEMESTER

PAPER (THEORY)	NAME	MAXIMUM MARKS	PAPER (PRACTICAL)	NAME	MAXIMUM MARKS
DCL5T201	Database Management System(DBMS)	70	DCL5P205	PRACTICAL	60
DCL5T202	Visual Basics(VB)	70	DCL5P206	PRACTICAL	60
DCL5T203	HTML & Webpage Design	70			
DCL5T204	TALLY ERP 9.0 with GST	70			

FIRST SEMESTER

PAPER:DCL5T101

Fundamentals of Computer and Operating System

Unit – I Introduction to Computer

History of development of computers, Computer system concepts, Characteristics Capabilities and limitations
Generations of computers. Basic components of a computer system – Control Unit, ALU, I/ O Devices, memory – RAM ROM, EPROM, PROM, Flash Memory and other types of memory.

Unit – II Storage Devices

Storage fundamentals – Primary Vs Secondary ,Data Storage and Retrieval methods – Sequential, Direct and Index Sequential. Various Storage Devices – Magnetic Tape, Magnetic Disks, Cartridge Tape, Data Drives, Hard DiskDrives, Floppy (Winchester Disk), Disks, Optical Disks, CD, VCD, CD-R, CD-RW, Zip Drive, DVD, SVCD.

Unit – III Computer Software

Types of Software – System software, Application software, Utility Software, Demo ware, Shareware, Freeware, Firmware, Free Software. Operating Systems – Functions, Types – Batch Processing, Single User, Multi User, Multiprogramming, Multi-Tasking. Programming languages – Machine, Assembly, High Level, 4 GL.Data representation in computers. Number System of computers – Binary, Octal, Hexa Decimal – Representation & their conversion. Coding System – ASCII, BCD, and EBCDIC etc. Computer Viruses.

Unit – IV Disk Operating System (DOS)

Introduction, History & Versions of DOS **DOS basics** Physical structure of disk, drive name, FAT, file & directory structure and naming rules, booting process, DOS system files. **Basic DOS Commands** Internal – DIR, MD, CD, RD, Copy, DEL, REN, VOL, DATE, TIME, CLS, PATH, TYPE etc. External – CHKDSK, PRINT, DISKCOPY, DOSKEY, MOVE, LABEL, FORMAT, SORT, FDISK, BACKUP, EDIT, MODE, ATTRIB, HELP, SYS etc. Executable V/s Non executable files in DOS

Unit –V Windows

Windows concepts, features, windows structure, desktop, taskbar, start menu, my computer, Recycle Bin. Windows Accessories – Calculator, Notepad, Paint, WordPad, Character map. Windows Explorer – Creating folders and other Explorer facilities. Entertainment – CD Player, DVD Player, Media Player, Sound Recorder, Volume Control.

Unit – VI Linux

- Introduction, History & Versions of Linux

Linux basics

- Physical structure of disk, drive name, FAT, file & directory structure and naming rules, booting process, Linux system files.

Basic Linux Commands

- Internal – LS, Make Directory, CD, CP, MB, DEL, REN, DATE, TIME, CLEAR, etc.
- Executable V/s Non executable files in Linux

PAPER: DCL5T102

Application Programs

UNIT –I:-Word Processing: MS Word

Introduction to Word Processing, Introduction to MS Word: features, Creating, Saving and Opening documents in Word, Interface, Toolbars, Ruler, Menus, Keyboard Shortcut. Editing a Document – Moving, Scrolling in a Document, Opening Multi document windows, Editing Text – Selecting, Inserting, deleting, moving text. Previewing documents, Printing documents – Print a document from the standard toolbar, Print a document from the menu, shrinking a document to fit a page, Reduce the number of pages by one. Formatting Documents: Paragraph formats, Aligning Text and Paragraph, Borders and Shading, Headers and Footers, Multiple Columns.

UNIT:-II Worksheet: MS Excel

Worksheet basics creating worksheet, entering data into worksheet, heading information, data, text, dates, Cell formatting values, saving & protecting worksheet. Opening and moving around in an existing worksheet Toolbars and Menus, keyboard shortcuts Working with single and multiple workbook – coping, renaming, moving, adding and deleting, coping entries and moving between workbooks ,Working with formulas & cell referencing. Auto sum, Coping formulas Absolute & Relative addressing , Working with ranges – creating, editing and selecting ranges, sorting. Formatting of worksheet – Auto format, changing – alignment, character styles, column width, date format, borders & colours, currency signs. Previewing & Printing worksheet – Page setting, Print titles, Adjusting margins, Page break, headers and footers. Graphs and charts – using wizards, various charts type, formatting grid lines & legends, previewing & printing charts.

UNIT -:III Presentation Graphics: MS Power Point

Features and various versions, Creating presentation using Slide master and template in various colour scheme , Working with different views and menus of power point ,Working with slides – Make new slide, move, copy, delete, duplicate, lay outing of slide, zoom in or out of a slide. Editing and formatting text: Alignment, editing, inserting, deleting, selecting, formatting of text, find and replace text. Bullets, footer, paragraph formatting, spell checking. Printing presentation – Print slides, notes, handouts and outlines. Inserting Objects – Drawing and inserting objects using Clip Art's pictures and charts. Custom Animation – slide transition effects and other animation effects. Presenting the show – making stand alone presentation

PAPER: DCL5T 103

Unit 1 – Introduction to C programming structure and C compiler, Data representation: Simple data types like real integer, character etc. Program, statements and Header Files, Simple Input Output statements in C, Running simple C programs. Primitive data types in C, char, integer, float, Double Long, Double Void etc.

Unit 2- Operators and Expressions – Arithmetic Operators, Assignment Operators, increment and decrement Operator, relational and Boolean operators, Mixing of Different data types and operators for forming Expressions.

Unit 3- Control Structure: If – statement, if –else statement, Multidway decision, Compound Statement, Loops: For – loop, while –loop, Do-While loop, Break statement, Switch statement, Continue statement, Go to statement. Arrays,

Strings, Multidimensional Arrays, Strings, Array of Strings

Unit 4- Functions: Function main, Functions accepting more than one parameter, User defined and library Functions, Concept associatively with functions, function parameter, Return value, recursion function, Structure and Union, Declaring and using Structure, Structure initialization, Structure within Structure, Operations on Structures, Array of Structure, Array within Structure,

Unit 5 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 string

PAPER: DCL5P104 :PRACTICAL

PAPER: DCL5P105 :PRACTICAL

SECOND SEMESTER

PAPER: DCL5T201

Data Base Management System

Unit–I Data Base Management System

Introduction to Database and RDBMS -Database Concepts- So What is Database? Manual Database System, Comparison between a manual and, Computerized Database System, Common DBMS, Introduction to Microsoft Access, Features of Access, Starting Access, Access Terminology, Exiting Access, Microsoft Access Hardware & Software Requirements Designing a Database- About designing a database, Steps in designing a database, Creating a Database- Creating a Database using blank database, Creating a Database using Database Wizard, Opening a existing database

Unit –II Data Base Tables

Tables- Introduction to Tables, Different Ways of creating a table, Guidelines for naming fields, controls and objects, Creating a table by entering data in a datasheet, Create a table using the Table Wizard, Working with Tables Designing a Table- Create a table from scratch using Design view, Field/Variable name Conventions, About the Data types, Setting Primary Keys, Field Properties - Field Size, Format, Decimal Places, Input Mask, Caption, Default Value, Data Validation, Required, Allow Zero Length, Indexed, Sorting and Filtering Data. Modifying the Table Design - To insert the field within the table, Rename a field name in a table, Deleting Fields, Moving Fields, Changing a Field Size, Saving a Table, Working with Tables in Datasheet View - Viewing the Table in Datasheet view, Adding Records, Sizing the Columns, Navigating the Datasheet - Using the navigation Buttons, Using the Go To Menu, Finding a Specific Value - Using Wildcards, Editing And Deleting Records, Undoing Edits, Cutting, Copying and Pasting Data ,Sorting and Filtering Data in a Datasheet - Quick-Sort Feature ,Filter By Selection. Relationship - Relationship in a Database, How to relationship work, Types of Mapping in Relationships, Define Relationships.

Unit–III Query Basics and SQL

Query Basics- What is a Query? Usage of Queries, Types of Queries, Steps for Creating a Query, The Design View, Working With Fields, Changing the order of Fields, Removing a Field, Inserting a Field, Hiding Fields, Sorting in Query. Perform Calculation in a Query, Creating a Query, Query by Criteria, Examples of select query, Example of Cross Tab query, Creating Cross Tab Query, Working with Action Queries, Creating Make Table Query, Creating Append Query, Creating Delete Query, Creating Update Query, Setting Query Properties. Working with SQL.

Unit – IV Report

Report, Introduction, Parts of a Report, Creating a Report, Creating a Columnar Report with Auto Report, Tabular Auto report, Creating Reports with Wizards, Examples of Report

PAPER: DCL5T202

. Unit- 1 Introduction to Visual Basics Controls

VB Interface , Tool Box, Object Browser Control, Input Box, Message Box ,Project Explore Standard Control ,Common Dialogue Control

Unit-2 Data Types

Types of Variables, Variable declaration , Array

Unit-3 VB Function and Sub Routine

Sub routine and functions, Adding, Removing forms Uses of Input Box ,Properties Window Debugging

Unit-4 Connectivity with Data Base and Report

Looping, Data Controls, Data Bound Controls, Data Grids, Data Reports

PAPER: DCL5T203

Unit – I Internet

Evolution, Protocols, Interface Concepts, Internet Vs Intranet, Growth of Internet, ISP, Connectivity –Dial-up, Leased line, VSAT etc. URLs, Domain names, Portals, Application's-Mail Concepts, POP and WEB Based E-mail, merits, address, Basic of Sending & Receiving, E-mail Protocols, Mailing List, and Free E-mail services, FTP.

Unit – II World Wide Web (WWW)

History, Working, Web Browsers, Its functions, Concept of Search Engines. Searching the Web, HTTP, URLs, Web Servers, Web Protocols.

Unit – III Web Publishing

Concepts, Domain name Registration, Space on Host Server for Web site, HTML, Design tools, HTML editors, Image editors, Issues on Web site creations & Maintenance, FTP software for upload web site.

Unit – IV HTML

Concepts of Hypertext, Versions of HTML, Elements of HTML syntax, Head & Body Sections, Building HTML documents, Inserting texts, Images, Hyperlinks, Backgrounds and Colour controls, Different HTML tags, Table layout and presentation, Use of font size & Attributes, List types and its tags.

PAPER: DCL5T204

Financial accounting:-TALLY ERP 9.0

UNIT : I: BASICS OF ACCOUNTING

Introduction , Double Entry System of Book keeping ,Types of Accounts - Real Accounts, Personal Accounts, Nominal Accounts ,Golden Rules of Accounting, Transactions - Recording Transactions (in Journal, Ledger) Financial Statements - Trading Account, Profit & Loss Account & Balance Sheet

UNIT : II: FUNDAMENTALS OF TALLY 9.0

Introduction - Salient Features of Tally. 9, Technological Advantages. Getting Functional with Tally. 9 - Tally. 9 Start up, Mouse / Keyboard Conventions, Setting up of Company in Tally. 9 - Create a Company, Select a Company, Alter a Company, and Shut a Company F11: Company Features - F1: Accounting Features, F2: Inventory Features, F3: Statutory &Taxation.

UNIT : III: CREATE ACCOUNTING MASTERS IN TALLY 9 .0

Groups - Creating Single Group, Creating Multiple Groups, Displaying Group, Altering Group. Ledgers - Creating

Single Ledger, Creating Multiple Ledgers, Displaying Ledger, Altering Ledger. Practice Exercises.

UNIT : IV: VOUCHER ENTRY IN TALLY. 9

Accounting Vouchers - Contra Voucher (F4), Payment Voucher (F5), Receipt Voucher (F6), Journal Voucher (F7), Purchase Voucher (F9), Sales Voucher (F8) Walkthrough for recording Accounting Vouchers Inventory

Vouchers - Purchase Order, Sales Order, Stock Journal Walkthrough for recording Inventory Vouchers Practice Exercises

UNIT : V GENERATING BASIC IN TALLY. 9.0

Financial Statements - Balance sheet, Profit & Loss A/c, Trial Balance Accounting Books & Reports - Cash Book, Bank Book, Purchase Register, Sales Register, Journal Register, Day Book.

LESSON 6: VALUE ADDED TAX (VAT)

Basic Concepts in VAT Configuring VAT in Tally 9 - Company Setup, Enabling Value Added in Tax (VAT), VAT Classifications Creating Masters - Creating Purchase Ledger, Creating Sales Ledger, Creating Input VAT Ledger, Creating Party Ledgers, Creating Stock Items Practice Exercises

PAPER: DCL5P205 :PRACTICAL

PAPER: DCL5P206:PRACTICAL

PROJECT WORK:

All the students must submit a project with the help of applications given below :

1. C Language
2. Visual Basics and DBMS
3. HTML
4. TALLY

Word Processing Basic • Features of MS Word • Typing and Inserting Text • Selecting or Deleting Text • Undo or Formatting TAB • Format Painter • Find and Replace • Paragraph Attributers Moving, Copying and Pasting Text Columns Drop Caps Change Case • Page Setting • Illustration, Picture, Shapes, SmartArt, Screenshot • Create Table Design View • Link • Hyperlink • Bookmark Table Layout • Comments • Header & Footers • Text • Symbols • Design Tab • Page Setup & Printing • Table of Content • Footnotes • Mail Merge • Review Tab • View Tab

MICROSOFT EXCEL INTRODUCTION TO MS EXCEL 2013

• Introducing Excel • Recognizing Interface Features Unique to Excel • Understanding Workbook Structure • Navigating through Workbooks • Making Workbook Selections THE BASICS OF DATA • Entering Text • Entering Dates & Numbers • Editing Cell Entries • Copying & Moving Data • Filling a Series MANAGING WORKBOOK STRUCTURE • Modifying Workbook & Worksheet Structure • Resizing Worksheet Elements • Hiding Workbook Component Workbook Protection FORMATTING CELLS • Applying Basic Formatting •

Formatting Numbers • Exploring the Format Cells Dialog Box • Creating & Applying Cell Styles • Conditional Formatting WORKING WITH FORMULAS • Excel Calculations • Entering Formulas • Formula Auditing THE BASICS OF FUNCTIONS • Using Basic Functions • Controlling Calculation Options • Linking Worksheets WORKING WITH GRAPHICS • Adding Clip Art • Add an Image From a file • Image Adjustment WORKING WITH CHART • Creating Charts • Modifying Chart Design Working with Chart Layout & Format WORKING WITH HYPERLINK • Using Bookmark • External Link SORTING, FILTRATION AND VALIDATION. SORTING, FILTRATION AND VALIDATION • Sorting Data • Filtering Data • Data Validation CUSTOMIZING EXCEL • Customize Tabs • Recording a Macro • Running a Macro PREPARING FILES FOR DISTRIBUTION • Print Area, Print Titles & Sheet Options • Renaming Sheets & Adding Headers/Footers • Printing Worksheets.

INTRODUCTION TO POWERPOINT 2013 • Exploring the PowerPoint Interface • Views, Navigation & Keyboard Shortcut Setting Options & Saving Files • PowerPoint Design Essentials • Setting Up a New File • Changing Backgrounds • Placeholders & Bullets • Adjusting Placeholders • Adding Headers & Footers • Saving PowerPoint Templates