Diploma in Information Technology (DIT)

Course Code : DP-04
Eligibility : 10th
Duration : 1 Year

Semester-I

Computer Fundamentals

Introduction To Computers , Types Of Computer , History Of Computer , Generation Of Computer , PC & Its Components , Disk Defragmentor , Categories Of PC , Evolution Of Micro Processors , Registers Of Micro Processors , Basic Components Of Computer System , Input Output& Storage Units , Software , Types Of Software , Types Of Operating System , Categories Of OS , Example Of Utility Program , Programming Languages , Generations Of Programming Language , Application Software , User &Example Of Application Software , Viruses , Types Of Virus , Virus Detection &Prevention , Communication Process , Communication Protocols , Communication Channel/Media , Modem , Components Of LAN , Types Of Internet Connections , Internet& Its Advantages , Internet Services , WWW & Common Technologies of Internet

Windows

Windows XP :-- Introduction To Window XP And Its Features , Hardware Requirements Of Windows , Window Structure,Desktop,Taskbar,Start Menu , Working ,With Recycle Bin – Restoring A Delete File ,Emptying The Recycle Bin , Managing Files, Folders And Disk Navigating Between Folders ,Manipulating Files And Folders ,Creating New Folder ,Searching Files And Folder My Computer Exploring Hard Disk ,Copying And Moving Files And Folder from One Drive To Another Formatting Floppy Drive ,Windows Accessories-Calculator ,Notepad ,Paint, Wordpad ,Character Map,Paint
Windows Fundamental :-- Windows is an operating system , XP Home Addition , XP Professional Addition , Active desktop , Multi user account , Data protection features , Playing MP3 Sound and XP , Windows desktop fundamental , Desktop , Taskbar , Icons , My computer , My Document , Recycle bin , Folder

Office Automation (Word , Excel , Power Point)

Office package :-- Word processor Software , Spreadsheet software , Presentation software , Database Management software
MS Office :-- Introduction to Ms Office , Introduction to Ms Word , How to Start , Components of Ms Word , File Menu , Edit Menu , View Menu , Insert Menu , Format Menu , Tools Menu , Table Menu , Window Menu , Help Menu
MS Excel :-- Introduction to MsExcel , Calculations , Formula , Functions , Insert Row/Columns , Create Chart , Format Sheet
Tools Menu :-- Goal Seek , Scenario , Auditing
Data Menu :-- Sort , Filter , Advance Filter , Sub total , Forms , Validations , Table , Consolidate , Pivot table , Window , Help
MS Power Point :-- Introduction , Insert New Slide , Format Slide , Slide Show

Basic Concept of Hardware Maintenance
Introduction To DOS Command , Basic Troubleshooting , Formatting , Installation

Semester-II

D.T.P. (Page Maker , Photoshop , Corel Draw)

Pagemaker

Adobe Pagemaker :-- Components of Pagemaker , ToolBox , Palettes , Working with text
Constructing a Publication :-- Creating a new Page , Save publication , Preferences
Edit Text :-- Edit Story , Master Pge , Measurement , Ruler & guideline , Pge numbers
Layout menu :-- Sorting page , Deleting Pge
Text formatting :-- Type Menu , Control Palette , Expert Tracking , Indents And Teb
Element Menu :-- Fill , Fill and Stroke , Create a Frame , Arrange , Wrap textGroup Object , Image
Control , Using PhotoShop Effect , Change the Shape Of Polygon/ Rectangle
Utilities Manu :-- Checking Spelling & Grammer , Change Case , Intex Entry

Coreldraw

Introduction to corel draw , Toolbars , Components of Corel draw
What is New in edit Menu :-- Introduction to corel draw , Duplicate , Clone
View menu :-- Full screen Preview , Grid and ruler setup
Layout Menu :-- Insert page , Delete page , Switching page Orientation , Page setup
Arrange menu :-- Introduction , Transformation , Order , Behind , Group , Shaping
Effects Menu :-- Adjust , Transform , Artistic Media , Contour , Extrude
Bitmap Menu :-- convert to bitmap , Mode , 3d Effect
Art Strokes :-- Charcol , Pastels , Pen & ink , Scrap oared , Sketchpad , Watercolor , Blur , Smooth
, Color transform , Halftone
Art Stockes :-- Edge Detect , Find edge
Creative :-- Crafts , Glass black , Sample glass
Distort :-- Blocks , swirl
Noice :-- Add Noice
Text menu :-- Edit text , Fit text to path
Tools & windows

Photoshop

Introduction to Photoshop , About wark area , Toolbox overview
File menu :-- What is new in file
Edit menu :-- What is s new in file , Transform & Patten
Image menu :-- Mode , Rotate image
Layer menu :-- New layer , Layer styles , New fill layer , Add layer mask
Select menu :-- Inverse , Feather , Modify , Grow
Filter menu :-- Extract , Artistic , Blur , Brush stroke , Distort , Pixel *ate , Render* , Sharpen
, Sketch

Internet & Multimedia Introduction

HTML , DHTML , Java/VB Script , Dream viewer
Macromedia Flash :-- Introduction , logging onto server , basic Macintosh skills , Working in Flash , Drawing with Flash , Basic animation , Working in the timeline , Working with symbols Shape tween staggering animation effect , Animation Review Break apart and distribute Intro to Motion Guide , Motion Guide Paths , Mask layers , Button Intro , Intro to scripting , Setting up your , project Publishing movies , Working with custom colors and gradients , Setting up scenes for first project , buttons and action scripting for project , Animated Buttons
Advance Programming in "C" & Data Structures
Better understand the C language , Exploit advanced features of the C language to enable efficient
programming , Files , File support overview. , ASCII and binary files. , Working with files , Preprocessor , The C Preprocessor - How it works. , #include. , #define - Defining named constants. , #undef. , Predefined macros (_FILE_ etc.). , Macros. , Conditional compilation. , Preprocessor operators #, ##, defined. , #line, #error. , #pragma. , Extern and static declaration (for variables and for functions) , The compiler , The linker , Object libraries , Advanced Use of Pointers , Arrays with negative indexes ,
 void pointers , Pointers to functions. , The library function qsort. , The library function bsearch , Reallocation. , Pointer to structures , C Functions and the Environment , Arguments to main , Environment variables

Data Structure

Basic concepts of data representation
Abstract data types :-- Fundamental and derived data types, Representation, Primitive data structures.
Introduction to Algorithm Design and Data Structures :-- Design and analysis of algorithm: Algorithm definition, Comparison of algorithms, Top-down and bottom up approaches to algorithm design, Analysis of Algorithm, Frequency count, Complexity measures in terms of time and space, Structured approach to programming.

Arrays :-- Representation of arrays , Single and multidimensional arrays , Address calculation using column and row major ordering , Various operations on Arrays.Application of arrays , Matrix multiplication , Sparse polynomial representation and addition.
Stacks and Queues :-- Representation of stacks and queues using arrays and linked-list , Circular

queues , Priority Queue and D-Queue , Applications of stacks , Conversion from infix to postfix and prefix expressions , Evaluation of postfix expression using stacks.
Linked lists :-- Singly linked list , Operations on list , Linked stacks and queues , Polynomial representation and manipulation using linked lists , Circular linked lists , Doubly linked lists , Generalized list structure , Sparse Matrix representation using generalized list structure.

Trees :-- Binary tree traversal methods , Preorder , In-order , Post-ordered traversal , Recursive and non-recursive.
Algorithms for above mentioned Traversal methods
Representation to trees and its applications

Binary tree representation of a tree , Conversion of forest into tree , Threaded binary trees , Lexical binary trees , Decision and game , trees , Binary search tree: Height balanced (AVL) tree , B-trees.

Searching,Sorting,Complexity

Searching :-- Sequential and binary searches, Indexed search, Hashing Schemes.
Sorting :-- Insertion , Selection , Bubble , Quick , Merge , Radix , Shell , Heap sort.
Comparision   of   time   complexity
Graphs :-- Graph representation , Adjacency matrix , Adjacency lists , Adjacency Multicasts.
 Traversal schemes , Depth first search , Breadth first search , Spanning tree , Definition , Minimal spanning tree algorithms , Shortest Path algorithms (Prime's and Kruskal's)

RDBMS

Oracle Product details , Different data base model , RDBMS components –Kernel , Data dictionary , client /server computing and oracle , Overview of oracle architecture –oracle files , system and user process , Oracle memory , system data base object , protecting data.

Oracle data type , working with tables , data Constraints , column level & table level constraints , defining different constraints on the table defining integrity constraints in the ALTER TABLE command , Select Command , logical operator , Range Searching , Pattern Matching , Oracle Function   , Grouping data from table in SQL , Manipulation Data in SQL Joining Multiple Tables(Equi joins) , Joining a Table to self (Self joins) , Sub queries Union , intersect & Minus clause , creating view Renaming the column of a view , granting permissions –updating   , Selection , Destroying view.

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