

Master Diploma in Information Technology (MDIT)

Course Code : MS-03

Eligibility : 12th in Any Discipline

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 Deleted 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 , Access)

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

MS Access :-- Introduction , Different Between DBMS /RDBMS , Hierarchy , Database File , How to Start work , Create database using wizard , Create blank Database

Data base object :-- Table , Primary key , Manipulate data , Field properties , Relationships , Forms , Sub forms , Queries , Operators , Calculations , Update Query , Reports , Macro , Import data

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

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

Semester-II

Object Oriented Programming with C & C++

Introduction to programming concept :- Types of programming language , Low level language , High level language , Types of language processor , Header file

Structure of programming language :- Program structure :-Comment , Define columns & Rows

Data type in C :- Introduction to data type , Variables , Input statement

Operators and expression :- Arithmetic operators , Increment and Decrement operator , Relational operator , Logical operator , And operator , Or operator , Not operator , Conditional operator

Decision control structure :- Introduction to Decision Making statement , The switch statement

loop control structure :- Introduction , For loop , While loop , Do while loop , Loop termination

Arrays :- Introduction to arrays

Function :- Introduction to function , Types of function

Structure :- What is Structures , Structure in c , The dot operator , Arrays of Structure

Introduction to C++

Overviews of C++ :- Object oriented Programming, concept , Advantage & ,usage of C++ . Classes and objects :classes structure and classes, union and classes, Friend function ,Friend classes, Inline function ,Scope resolution operator, Static class members, Static data members function, passing object to function, Returning objects , Object assignment.

Constructor & Destructor :- Constructor and destructor: Introduction constructor , parameterized constructor , multiple constructor in a class , constructor with default argument , copy constructor , copy constructor , Default argument ,destructor.

Operator overloading :- function & operator overloading: function overloading , overloading constructor function finding the address of an overloading function , operator overloading: creating a member operator function , Creating prefix and postfix form of the increment & decrement operator , overloading the shorthand operation (i .e. +=,-=etc) , operator overloading restrictions , operator overloading using friend function , overloading loading Some special operators , overloading [],(),-,comma operator , overloading <<.

Inheritance :- Base class access control , protected member , Protected base class Inheritance , Inheritance multiple base class , constructors , destructors & Inheritance , when constructor & destructor function are expected , Passing parameter to base class constructors , grating access , Virtual functions & Polymorphism: virtual function , pure virtual function , early Vs , late binding.

The C++ input /output system basic :- C++ stream , the basic stream classes: C++ Predefined stream , formatted I/o: formatting using the ios member , setting the format flags , clearing format flags , an overloaded form of self

Oracle/SQL

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.

Java

Introduction of Java :- What is Java? , How to Get Java , A First Java Program , Compiling and Interpreting Applications , The JDK Directory Structure

Data types and Variables :- Primitive Data types ,Declarations , Variable Names , Numeric Literals , Character Literals , String , String Literals , Arrays , Non-Primitive Data types ,The Dot Operator

Operators and Expressions :- Expressions Assignment Operator , Arithmetic Operators Relational Operators Logical Operators Increment and Decrement Operators Operate -Assign operators (+ = , etc.) The Conditional Operator Operator Precedence Implicit Type Conversions The Cast Operator

Control Flow Statements :- Statements , Conditional (if) Statements , Data types and Variables 3 , Adding an else if , Conditional (switch) Statements , while and do-while Loops , for Loops , A for Loop Diagram , Enhanced for Loop , The continue Statement , The break Statement

Methods :- Methods , Calling Methods , Defining Methods , Method Parameters , Scope , Method Parameters

Object-Oriented Programming :- Introduction to Object-Oriented Programming , Classes and Objects , Fields and Methods , Encapsulation , Access Control , Inheritance , Polymorphism

Objects and Classes :- Defining a Class , Creating an Object , Instance Data and Class Data , Methods , Constructors , Access Modifiers , Encapsulation

Using Java Objects :- Printing to the Console , StringBuilder and StringBuffer , Methods and Messages toString , Parameter Passing , Comparing and Identifying Objects , Destroying Objects

Inheritance in Java :- Inheritance , Inheritance in Java , Casting , Method Overriding , Polymorphism , Super class

Packages :- The import Statement , Static Imports , Casting , CLASSPATH and Import , Defining Packages , Package Scope

Exception Handling :- Exceptions Overview , Catching Exceptions , The finally Block , Exception Methods , Declaring Exceptions , Defining and Throwing Exceptions , Errors and RuntimeExceptions

Input/Output Streams :- Overview of Streams , Bytes vs. Characters , Converting Byte Streams to Character Streams , File Object , Binary Input and Output , PrintWriter Class , Reading and Writing Objects , Basic and Filtered Streams

Collection Framework :- The Collections Framework , The Set Interface , Set Implementation Classes , The List Interface , List Implementation Classes , The Map Interface , Map Implementation Classes

Inner Classes :- Inner Classes , Member Classes , Local Classes , Anonymous Classes , Instance Initializers , Static Nested Classes



Introduction to Threads :- Non-Threaded Applications , Threaded Applications , Creating Threads , Thread States , Runnable Threads , Coordinating Threads , Interrupting Threads , Runnable Interface , ThreadGroups

Interfaces and Abstract Classes :- Separating Interface and Implementation , UML Interfaces and Realization , Defining Interfaces , Implementing and Extending Interfaces , Runnable Threads , Abstract Classes

Serialization :- Object Serialization , Serializable Interface , Serialization API , ObjectOutputStream and ObjectOutputStream , The Serialization Engine , readObject and writeObject , Externalizable Interface

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