Diploma in Information Technology

CCE offers many job oriented computer courses."Diploma in Information Technology" is one of the CCE approved course.The detailed contents of this course is in the attachment.

COURSE CODE : CCE-D9

ELIGIBILITY : 10th

DURATION : 1 Year

SYLLABUS

Semester-I

Computer Fundamentals

- Introduction To Computers , Types Of Computer , History Of Computer , Generation Of Computer , PC & Its Components , Disk Defragmenter , 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 Word

- 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 PowerPoint

- 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 Menu

- 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 ReviewBreak apart and distribute Intro to Motion Guide , Motion Guide Paths , Mask layers , Button Intro , Intro to scripting , Setting up your , projectPublishing 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 Pointer , 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 applicationsBinary 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 and 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.