

# **CCE Certified Software Engineer**

CCE (**Complete Computer Education**) offers many job oriented computer courses."CCE Certified Software Engineer" is one of the CCE approved course. The detailed contents of this course is in the attachment.

COURSE CODE : CCE-CC2

ELIGIBILITY: 10th

DURATION: 5 Months

SYLLABUS

## **Computer Fundamentals & IT**

- 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

<b>Application Office package</b>	<b>Software</b>	<b>(MS</b>	<b>Office)</b>
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- 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 Ms Excel , Calculations , Formula , Functions , Insert Row/Columns , Create Chart , Format Sheet Tools Menu :-- Goal Seek , Scenario , Auditing Data Menu :-- Sort , Filter , Advance Filter , Subtotal , Forms , Validations , Table , Consolidate , Pivot table , Window , Help

## **Ms Power Point**

- Introduction , Insert New Slide , Format Slide , Slide Show

## **DBMS/RDBMS using Oracle**

- 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(Equip 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.

## **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 [ ],0,-,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 Computer programming , Introduction to Programming languages , Low level languages , Assembly language , Machine languages , Language Processors Introduction to Visual Basic :-- Introduction to programming , Advantages& Disadvantages , Features , Edition Building a VB Application :-- Project , Forms , Controls , Properties , Event procedures , Modules , VB Operate Modes , Setting Properties , Writing codes Controls :-- VB standard controls Data types :-- Types declaration character , Variables , Variable declaration , Default variant , Implicit , Explicit , Procedure level , Form level , Global level Message Box Operator in Visual basic :-- Introduction to operator , Arithmetic operator , Relational operator , Logical operator Conditional branching :-- The if statement & select statement , Simple if statement , If else statement , Nested if statement , If else ladder , The select statement Special Events :-- Change event , Key down , Key press , Lost focus System built in Function :-- Data type functions , Math's functions , String function , Conversion function , Date function , Input box function Loops :-- For loops , For each loops , While loops , Do while loops , With ....end with Procedure &Modules :-- Introduction to procedure & function , Sub procedure , Function procedure , Property procedure , Let method , Get method , Set method , Modules Menu editor :-- Introduction to menu editor , document interface , MDI form , Popup menus Special controls :-- Toolbar control , Status bar , Calendar control , Date picker , Ms tabbed dialog control Error in Debugging :-- Introduction to errors , Kinds of errors , Debugging , Handling run time error Common Dialog Controls :-- Introduction to common dialog control , Open dialog control , Save dialog control , Font dialog control , Print dialog control File System Object Component Visual basic and data base :-- Introduction to data base , Data control , Database engine , ADO data control , Data control properties , Data bound control , ADO data control methods Programming with ADO :-- Connection object , Command object , Record set object , Cursor type , ADO library ADO Data Environments Hierarchical flex grid control Data Report :-- Introduction to data report , Report section , Other report section Component Basic :-- Introduction to com , Active X EXE , Active X DLL , Active X Control , Check the control , Creating active XDDL , Creating active X control , Package & Development Wizard