Course Syllabus: Certificate Course in Computer Application

Batch Name: CCCA
Eligibility: 10th

Course Start: 1st of Every Month
Course Duration: 180 Hours

Courses / Modules Paper

Module 1

Paper 1	Paper 2
Fundamentals, MS Office	Internet & Digital Services

Module 2: Opt any One Paper

Paper 1	Paper 2	Paper 3	Paper 4
PhotoShop	Corel Draw	Language C	HTML, CSS

Module 1
Paper 1: Fundamentals

1:Fundamentals of Computer
1.1 Introduction to Computer
1.2 Block Diagram of Computer
1.3 Classification of Computer
1.4 Characteristics of computer
1.5 Generations of Computer
1.6 Uses of Computer
1.7 Input Devices
1.8 Output Devices
1.9 Computer Memory
1.10 Computer Hardware
1.11 Computer Software
1.12 Operating System

2:Number System
2.1 Introduction
2.2 types of Number Systems
2.3 Conversion of Number system

3 :Windows-7
3.1 Introduction to Windows
3.2 User Interface of Microsoft Window 2007
3.3 Changing Desktop Background
3.4 Changing Window Color
3.5 Changing Screen Saver
3.6 Changing Screen Resolution
3.7 Changing Data/Time
3.8 Making Empty Recycle Bin
3.9 Restoring Deleted File
3.10 Hard Drives
3.11 File and Folder Views
3.12 Copying File and Folder
3.13 Opening a File and Folder
3.14 Deleting a File and Folder
3.15 Renaming File and Folder
3.16 Working with Calculator
3.17 Working with Paint
3.18 Working with Notepad
3.19 Windows 7 vs Windows 10

4: Internet and Networking
4.1 Internet
4.2 Advantages & Disadvantages of Internet
4.3 Search Engines and Web Browsers
4.4 Website
4.5 Domain Name
4.6 E-Commerce
4.7 Email
4.8 Computer Security Threats

MS Office
MS Word

1: MS Word Home Tab
1.1 Introduction
1.2 Elements of MS Word
1.3 Explaining the Ribbons

2: MS Word Insert Tab
2.1 Insert
2.2 Pages
2.3 Tables
2.4 Illustrations
2.5 Links
2.6 Headers and Footers
2.7 Text Group
2.8 Symbols

3: MS Word Mailing
3.1 Create
3.2 Start Mail Merge

4: MS Word References
4.1 Table of Contents
4.2 Footnotes
4.3 Citation and Biblography
4.4 Caption
4.5 Index
4.6 Table of Authorities

5: MS Word Review
5.1 Proofing
5.2 Comments
5.3 Tracking
5.4 Changes
5.5 Compare
5.6 Protect

6: MS Word Views
6.1 Document View
6.2 Show/Hide
6.3 Zoom Group
6.4 Macro

MS Excel

7: Introduction to Excel
7.1 Introduction
7.2 History of Excel
7.3 Uses of MS Excel
7.4 Important Components of Excel
7.5 Excel Window Overview
7.6 Font
7.7 Alignment
7.8 Clip Board
7.9 Number Formatting
7.10 Conditional Formatting
7.11 Format as Table
7.12 Cell Styles
7.13 Cells
7.14 Editing

8: MS Excel: Data
8.1 Get External Data
8.2 Sort and Filter
8.3 Data Tools

9: MS Excel: Insert
9.1 Tables
9.2 Illustrations
9.3 Charts
9.4 Links

10:MS Excel: Page Layout
10.1Themes
10.2 Page Setup
10.3 Scale to Fit
10.4 Sheet Options
10.5 Arrange

11:MS Excel: Review
11.1 Proofing
11.2 Comments
11.3 Changes

12: MS Excel: View
12.1 Workbook Views
12.2 Show/Hide
12.3 Zoom
12.4 Window Group
12.5 Macros

MS Power Point

13: Power Point: Home

13.1 Starting MS Power Point
13.2 Elements of MS Power Point
13.3 Clip Board
13.4 Slides
13.5 Font Group
13.6 Paragraph
13.7 Drawing Groups
13.8 Editing Group

14: Power Point: Insert

14.1 Insert: Introduction
14.2 Tables
14.3 Illustrations Group
14.4 Links
14.5 Text Group
14.6 Media Group

15: Power Point: Design

15.1 Page Setup
15.2 Adding Themes to Presentation
15.3 Changing Slide Background
15.4 Variants

16: Power Point: Animation

16.1 Animations: Introduction
16.2 Timing Group
16.3 Add Custom Animation to Objects
16.4 Add Animations to Text
16.5 Custom Animation as Exact Effect
16.6 Motion Path under Custom Animation
16.7 Removing Animation
16.8 Transition to This Slide Tab
16.9 Advance slide

17: Power Point: Slide Show

17.1 Slide Show: Introduction
17.2 Slide Show Starting from the Beginning
17.3 Setup Group

18:Power Point: Review

18.1 Proofing
18.2 Comments
18.3 Protect Presentation

19:Power Point: View

19.1 View: Introduction
19.2 Presentation View Group
19.3 Show/Hide
19.4 Zoom
19.5 Color Tab
19.6 Window Tab
19.7 Macro

MS Access

20:MS Access-Overview

20.1 What is MS Access?
20.2 Advantages and Features of MS Access
20.3 Difference between Access and Excel
20.4 Architecture of MS Access
20.5 MS Access Objects
- Tables
- Queries
- Forms
- Reports

20.6 Other MS Access Objects
- Macro
- Module

20.7 Creating MS Access Database
- Create Blank Database

20.8 Data Types Used in MS Access
- Short Text
- Long Text
- Number
- Date/Time

21:MS Access-Creating Tables

21.1 Create Tables
21.2 Storing Data in Tables
21.3 Table Design View

22:MS Access-Query Data

22.1 What is Query in MS Access?
22.2 Create Select Query
22.3 Query Criteria
22.4 Action Queries
22.5 Types of Action Queries
- Append
- Update
- Delete
- Make-Table

22.6 Parameter Queries
22.7 Alternate Criteria

23:MS Access-Relating Data

23.1 Introduction
23.2 Normalization
23.3 Defining Relationships
23.4 Types of Relationships
- One-to-Many Relationships
- Many-to-Many Relationships
- One-to-One Relationships
- Make-Table

23.5 Creating Relationships

24:MS Access-Grouping Data

24.1 Aggregate Query
24.2 Aggregate Query Functions
- Sum
- Avg
- Min
- Max
- Count
- StDev
- Var

24.3 Concatenation of Data
24.4 Summarizing Data
- Cross Tab Query

25:Joins and Query Wizard

25.1 What is Join?
25.2 Types of Joins in Access
- The Inner Join
- The Outer Join
- The Left Outer Join
- The Right Outer Join
- Self Join

25.3 Concatenation of Data
25.4 Summarizing Data
- Cross Tab Query

25.5 Query Wizard
- Duplicated Query wizard
- Unmatched Query Wizard

26:MS Access- Forms

26.1 Creating Forms
26.2 Two Basic Types of Forms
- Bound Forms
- Unbound Forms

26.3 Types of Bound Forms
- Single Item Form
- Multiple Item Form
- Bound Forms
- Split Forms

26.4 Creating Forms
26.5 Form Design
26.6 Modify Form
- Themes

26.7 Navigation Form
26.8 Form Controls
- Combo Box
- Text Box
- Label
- Tab Control
- Hyperlink
- Check Box
- List Box
- Attachment
- Image

27:MS Access- Reports

27.1 Creating Report
27.2 Create Report by Report Design
27.3 Formatting Reports

28:MS Access- Macors & Built-in Functions

28.1 What are Macros?
28.2 Creating a Macro
28.3 Formatting Reports
28.4 Built-in Functions
- Date & Time Functions
- DateDiff() Function
- Format() Function
- Iif() Function

29: Data Import and Export

29.1 Import Different Types of Data
- MS Excel
- ODBC Database
- Text Files
- XML Files

29.2 Data Export
29.3 Data Export Formats
- MS Excel
- MS Access, XML Files
- ODBC Database, Text Files

Paper 2:
Internet & Digital Services

4: Internet & Data Handling

1.1 Internet
1.2 Advantages & Disadvantages of Internet
1.3 Search Engines and Web Browsers
1.4 Website
1.5 Domain Name
1.6 E-Commerce
1.7 Email
1.8 Computer Security Threats
1.9 Networking
1.10 Network Topology
1.11 Handing Data

Module 2

Paper 1: PhotoShop

1:Introduction to Photoshop

1.1 Introduction
1.2 Navigating Photoshop
1.3 Menus and Panels
1.4 Opening new file
1.5 Opening existing file

2: Getting started with Photoshop

2.1 Exploring the Toolbox
2.2 Application Bar and option Bar
2.3 Exploring panels and menus
2.4 Creating and Viewing a new document
2.5 Customizing the interface
2.6 Setting Preferences

3: Working with Images

3.1 Zooming and panning Images
3.2 Working with Multiple images
3.3 Undoing steps with history
3.4 Adjusting Color with new Adjustments Panel
3.5 The new Master page
3.6 The new note Tool
3.7 Auto-Blend and Auto-Align Layers Command
3.8 3D commands

4: Resizing and Cropping Images

4.1 Understanding Pixels and resolution
4.2 The Image size Command
4.3 Interpolation Option
4.4 Resizing for print and web
4.5 Cropping and Straightening an Image
4.6 Adjusting Canvas size and canvas rotation

5: Working with Basic Selection

5.1 Selection with Elliptical Marque tool
5.2 Using Magic Wand and Free Transform To
5.3 Selection with Regular and Lasso Tool
5.4 Combining selection
5.5 Using Magnetic Lasso tool
5.6 Using Quick Selection Tool
5.7 Modifying Selections

6: Getting Started with Layers

6.1 Understanding the Background Layer
6.2 Creating, Selecting, Linking and Deleting the Layers
6.3 Locking and Merging Layers
6.4 Copying Layers, Using Perspective and Layer
6.5 Filling and Grouping Layers
6.6 Introduction to Blending Modes
6.7 Blending Modes, Opacity and Fill
6.8 Creating and Modifying Text

7: Printing in Photoshop

7.1 Using the Brush tool
7.2 Working with Color and Swatches
7.3 Creating and using Gradients
7.4 Creating and working with Brushes
7.5 Pencil and Eraser Tools
7.6 Painting with Selection

8: Photo Retouching

8.1 The Red Eye Tool
8.2 The Clone Stamp Tool
8.3 The Patch Tool & Healing Brush Tool
8.4 The Spot Healing Brush Tool
8.5 The Color Replacement Tool
8.6 The Toning and Focus Tool

9: Color Correction

9.1 Color Spaces and Color Modes
9.2 The Variation Command
9.3 Auto Commands
9.4 Adjusting Levels
9.5 Adjust Curves, Non Destructively with Adjustment Layers

10: Using Quick Mask Mode

10.1 Quick Mask Option
10.2 Painting a Selection
10.3 Saving and Removing a Selection

11: Working With Pen Tool

11.1 Understanding Paths and Pen Tool
11.2 Creating Straight and Curve Paths
11.3 Creating Combo Paths
11.4 Creating Clipping Paths

12: Special Effects

12.1 Getting Started With Photoshop Filters
12.2 Smart Filters
12.3 Creating Text Effects
12.4 Applying Gradient to Text

Paper 2: Corel Draw

1: Getting Started with Corel Draw

1.1 Introduction to Corel Draw
1.2 Features of Corel Draw
1.3 Corel Draw Interface
1.4 Toolbox
1.5 Common Tasks
1.6 Setting up a Page in Corel Draw
1.7 Creating Drawings/Pages

2: Drawing and Coloring

2.1 Starting and Opening Drawings
2.2 Selecting Objects
2.3 Creating Basic Shapes
2.4 Reshaping Objects
2.5 Applying Color Fills and Outlines
2.6 Saving Drawings
2.7 Backing-up and Recovering Files
2.8 Choosing Colors
2.9 Creating Custom Color Palettes

3: Working with Lines, Outlines and Brush Strokes

3.1 Drawing Lines
3.2 Formatting Lines and Outlines
3.3 Closing Multiple Line Segment
3.4 Applying Brush Strokes
3.5 Spraying Objects along a Line
3.6 Drawing Flow and Dimension Lines

4: Drawing Shapes

4.1 Drawing Rectangles and Squares
4.2 Drawing Ellipses, Circles and Arcs
4.3 Drawing Polygons and Stars
4.4 Drawing Spirals
4.5 Drawing Grids
4.6 Drawing Pre-defiend Shapes
4.7 Drawing Using Shape Recognition

5: Working With Objects

5.1 Selecting Objects
5.2 Copy, Duplicate, and Deleting Objects
5.3 Copying Object Properties and Effects
5.4 Positioning Objects
5.5 Aligning and Distributing Objects
5.6 Changing the Order of Objects
5.7 Rotating and Mirroring Objects
5.8 Grouping Objects
5.9 Combining Objects

6: Working With Symbols

6.1 Creating, Editing, and Deleting Symbols
6.2 Using Symbols in Drawings
6.3 Managing Collections and Libraries
6.4 Sharing Symbols between Drawings

7: Filling Objects

7.1 Applying Uniform Fills
7.2 Applying Fountain Fills
7.3 Applying Pattern Fills
7.4 Applying Texture Fills
7.5 Applying Mesh Fills

8: Applying Effects

8.1 Blends
8.2 Distortion
8.3 Contour Effects
8.4 Lens Effects Transparency
8.5 Power Clips

9: Working with Pages

9.1 Specifying the Page Layout
9.2 Choosing a Page Background
9.3 Adding, Renaming and Deleting Pages
9.4 Using Rulers
9.5 Setting the Grids
9.6 Setting up Guidelines
9.7 Setting the Drawing Scale

10: Working with Text

10.1 Adding and Selecting Text
10.2 Changing the Appearance of Text
10.3 Text Tool
10.4 Artistic and Paragraph Text
10.5 Embedding Objects into Text
10.6 Wrapping Text around Object
10.7 Linking Text to Objects
10.8 Aligning and Spacing Text
10.9 Shifting and Rotating Text

11: Working with Bitmaps

11.1 Converting Vector Graphics to Bitmaps
11.2 Adding Bitmaps
11.3 Cropping and Editing Bitmaps
11.4 Applying Special Effects to Bitmaps
11.5 Applying Color and Tone Effects
11.6 Removing Dust and Scratch Mark

12: Publishing to Web

12.1 Preparing Files & Objects for Web Publishing
12.2 Publishing to HTML

13: Publishing to PDF

13.1 Save Document as PDF File
13.2 Reducing PDF File Size
13.3 Preparing PDF Files for a Service Bureau
13.4 Optimizing PDF Files

14: Web Resources

14.1 Importing Files
14.2 Exporting Files

Paper 3: Language C

1: Introduction of C

1.1 History
1.2 Why C language
1.3 Getting g started with C
1.4 Writing first program: hello world
1.5 Algorithm and flowchart
1.6 Understanding the structure and syntax of C
1.7 C programming style

2: Fundamentals of C

2.1 Introduction
2.2 Character set
2.3 Keywords
2.4 Identifiers
2.5 Variables
2.6 Data types
2.7 Constants
2.8 Declaring a keyword
2.9 Reading data from keyboard

3: Operators and expressions

3.1 Introduction
3.2 Arithmetic operator
3.3 Increment and Decrement operator
3.4 Assignment operator
3.5 Relational operator
3.6 Logical operator
3.7 Conditional operator

4: Control Statements

4.1 Introduction
4.2 Branching statements
- •If
- •Nested if
- •If else
- •Nested if else

4.3 Looping statement
- •For loop
- •While loop
- •Do while loop

4.4 Jumping statement
- •Goto
- •Break
- •Continue

5: Function in C

5.1 Introduction
5.2 Types of functions
5.3 Types of user define functions
- •No return type with no arguments
- •Return type with no arguments

5.4 Need of functions
5.5 Scope rules
5.6 Recursion
5.7 Function using arguments
- •Call by value
- •Call by reference

6: Array in C

6.1 Introduction
- •Declaration of Array
- •Initializing an array
- •Accessing an Array

6.2 One-dimensional array
6.3 Two-dimensional array
- •Nesting of loops

6.4 Multi-dimensional array
6.5 Dynamic Array

7: Pointers in C

7.1 Introduction
7.2 Declaration of pointers
7.3 Initialization of pointers
7.4 Accessing variable through pointer
7.5 Pointer to a pointer
- •Declaring a double pointer

7.6 Operation on pointer
- •Increment and decrement operator
- •Addition & subtractions of constant value
- •Subtracting two pointers
- •Comparison between two pointers

7.7 Pointer to array
7.8 Array to pointer
7.9 Passing pointer as a function
7.10 Pointer to structure
- •Pointer pointing to a function

8: Structures in C

8.1 Introduction
8.2 Defining a structure
8.3 Declaring a structure member
- •Declaring structure variable separately
- •Declaring structure variable along with Definition

8.4 Accessing structure member
- •With Dot operator
- •With arrow operator

8.5 Structure initialization
8.6 Array of structure
8.7 Using structure as a function argument
- •Passing structure member as an argument
- •Passing structure variable as an argument
- •Passing structures pointer as an argument

9: Union in C

9.1 Introduction
9.2 Declaration of union
9.3 Accessing union member
9.4 Bit field

10: Input and output

10.1 Introduction
10.2 Standard files
10.3 Formatted input output
- •scanf()
- •printf()

10.4 Unformatted input output
- •getchar()
- •Getch()
- •gets()
- •putchar()
- •puts()

10.5 Error Handling
- •errorno
- •strerror
- •Perror

11: File I/O

11.1 Introduction
11.2 Needs of files
11.3 Types of files
- •Text files
- •Binary files

11.4 Files operations
- •File creation
- •Opening a file
- •Reading data from file
- •Writing data to file
- •Closing a file

11.5 Reading writing text files
- •getc()
- •putc()
- •getw()
- •putw()
- •getchar()
- •putchar()
- •fprintf()
- •fscanf()

11.6 Reading writing binary files
- •fread()
- •Fwrite()

Paper 4: HTML,CSS

HTML

1: Starting with HTML

1.1 Introduction to HTML
1.2 What is HTML
1.3 HTML Versions
1.4 Web Browsers
1.5 HTML Editors
1.6 HTML Tags

2: HTML Images

2.1 HTML Images
2.2 alt attribute with images
2.3 style Attribute
2.4 Change the Height and Width of Image
2.5 Images as a Floating
2.6 HTML Images as a Link
2.7 Background Images
2.8 The <picture> Element
2.9 HTML Images vs Title Attribute

3: Links in HTML

3.1 Link
3.2 HTML Links
3.3 The Target Attribute
3.4 Images as Link
3.5 HTML Links Titles
3.6 External Paths
3.7 HTML Link Colors

4: HTML Lists

4.1 List
4.2 Types of Lists in HTML
- • Unordered List
- • Ordered List
- • Definition List

5: HTML Tables

5.1 Table Introduction
5.2 HTML Table-Adding Borders
5.3 HTML Table-Collapsed Borders
5.4 The Empty-cells Property
5.5 Table Heading Alignment
5.6 Cell Padding and Border Spacing
5.7 Cells that Span many Columns
5.8 Cells that Span many Rows
5.9 Adding a Caption
5.10 Table Styling

6: HTML Forms

6.1 The <form> Element
6.2 Text
6.3 Radio Button Input
6.4 The Submit Button
6.5 Attributes
6.6 Grouping Form Data with <fieldset>
6.7 The <select> Element
6.8 The <option> Element
6.9 Visible Values
6.10 Allow Multiple Selection
6.11 The <textarea> Element
6.12 The <datalist> Element
6.13 The Output Element
6.14 Input Type Password
6.15 Input Type Reset
6.16 Checkboxes
6.17 Input Type Color
6.18 Input Type Date
6.19 Input Type Email
6.20 Input Type Number
6.21 Input Type Range
6.22 Input Type Search
6.23 Input Type Tel
6.24 Input Type Time
6.25 Input type URL
6.26 Input Type Week

7: HTML Blocks and Classes

7.1 HTML Blocks Introduction
7.2 The Element
7.3 The Element
7.4 Using the Class Attribute
7.5 Using the id Attribute
7.6 HTML Iframes

CSS

1: Starting with CSS

1.1 What is CSS?
1.2 CSS Syntax
1.3 CSS Selectors
- • The id Selector
- • The class Selector

1.4 Grouping Selectors
1.5 CSS Comments
1.6 CSS File Inclusion
1.7 Multiple Style sheets
1.8 Cascading Order

2: CSS Colors

2.1 CSS Colors
2.2 Background Color
2.3 Text Color
2.4 Border color
2.5 Color Values
2.6 RGB Values
2.7 HEX Value
2.8 HSL Value
2.9 Saturation
2.10 Lightness
2.11 RGBA Value
2.12 HSLA Value

3: CSS Background

3.1 CSS Backgrounds
- • Background Color
- • Background Image
- • Background-Shorthand Property

4: CSS Borders

4.1 CSS Borders
- • Border Style Property
- • Border width Property
- • Border Color Property
- • Border-Individual Sides
- • Border -Shorthand Property
- • Rounded Borders

5: CSS Margins

5.1 CSS Margins
5.2 Margin Properties
5.3 Margin-Shorthand Property
5.4 the Auto Value
5.5 The Inherit Value

6: CSS Padding

6.1 CSS Box Model
6.2 CSS Padding Properties
- • Padding-Top

- Padding-Bottom
- Padding-Left
- Padding-Right
- Padding

6.3 Giving only one value to Padding

7: CSS Text

7.1 CSS Text Properties
7.2 Types of CSS Text Properties
- Color Property
- Text-Align Property
- Text-Decoration Property
- Letter-Spacing Property
- Word-Spacing Property
- Text-Indent Property
- Direction Property
- White-Space Property
- Line-Height Property
- Text-Shadow Property
- Text-Transform Property

8: CSS Font

8.1 CSS Font Properties
8.2 Types of CSS Font Properties
- Font-Family Property
- Font-Style Property
- Font-Size Property
- Font-Weight Property
- Font-Variant Property
- Font Property

9: CSS Lists

9.1 CSS List Properties
9.2 Types of CSS List Properties
- List-Style-Type Property
- List-Style-Image Property
- List-Style-Position Property
- Marker -Offset Property
- List-Style Property

9.3 Styling with Colors

10: CSS Scrollbars

10.1 CSS Overflow/Scrollbar Properties
10.2 Types of Overflow Properties Values
- Visible
- Hidden
- Scroll
- Auto

10.3 Overflow-x and Overflow-y

11: CSS Tables

11.1 CSS Tables Properties
11.2 Types of CSS Table Properties
- Border Property
- Border-Collapse Property
- Width and Height Property
- Vertical Align Property
- Border-Spacing Property
- Caption-Side Property
- Empty-Cells Property
- Table-Layout Property
- Border-Bottom Property
- Zebra-Striped Property

11.3 :hover Selector