



(A Venture of Chandigarh ETC Services Pvt. Ltd.)

An ISO 9001:2015 Certified Organisation with Completely Online Management System

Website : www.citcchandigarh.com

Course Syllabus: Diploma in Hardware & Networking

Batch Name: *Diploma in Hardware & Networking*

Course Start: *1st of Every Month*

Eligibility: *10th*

Course Duration: *180 Hours*

Courses / Modules Paper

Module 1

Paper 1

Fundamentals, MS-Office,
Internet(Digital Services)

Module 2:

Paper 1

Core Hardware and PC Assembling
(Troubleshooting)

Module 3:

Paper 1

Basic networking Concepts, Network
Configuration & Security

Module 1

Paper 1: Fundamentals, MS-Office, Internet (Digital Services)

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

Microsoft 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 Bibliography
- 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 Window
- 6.5 Macro

Microsoft 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
- 9.5 Spark-Lines
- 9.6 Text Group

10:MS Excel: Page Layout

- 10.1 Themes
- 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

Microsoft 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

Microsoft 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
 - Currency
 - AutoNumber
 - Yes/No
 - Reports

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
- 29.1 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
 - ODBC Database
 - XML Files
 - Text Files

Module 2

Paper 1: Core Hardware and PC Assembling (Troubleshooting)

1: Basic Computer Concepts

- 1.1 Generation of Computer
- 1.2 Types of Computer
- 1.3 Characteristics
- 1.4 Block Diagram
- 1.5 CPU
- 1.6 Motherboard
- 1.7 RAM
- 1.8 ROM
- 1.9 Ports
- 1.10 Connectors
- 1.11 Vables
- 1.12 Slots and Crads
- 1.13 Bus Lines
- 1.14 Optical Disk Drive

2: Electronics

- 2.1 Electronic Components
- 2.2 Number System
- 2.3 Binary Number System
- 2.4 Octal Number System
- 2.5 Decimal Number System
- 2.6 Hexadecimal Number System
- 2.7 Logic Gates
- 2.8 Flip Flops
- 2.9 Multiplexer
- 2.10 De-Multiplexer

3: Input Device

- 3.1 Keyboard
- 3.2 Mouse
- 3.3 Touch Screen
- 3.4 Trackball and Joystick
- 3.5 Microphone
- 3.6 Scanning Devices
- 3.7 Bar Code Reader
- 3.8 MICR

4: Output Devices

- 4.1 Monitor Printer
- 4.2 Printer
- 4.3 Speaker
- 4.4 Projector

5:Storage Devices

- 5.1 Hard Disk
- 5.2 Compact Disk
- 5.3 Digital Video Disk
- 5.4 Pen Drive
- 5.5 Memory Card
- 5.6 Portable Hard Disk

Module 3

Paper 1: Basic Networking Concepts, Network Configuration & Security

1: Introduction about Computer

- 1.1 Basics of Computer
- 1.2 Organization of Computer
- 1.3 Software and Hardware
- 1.4 Input/Output Device

2: Basic Networking concepts

- 2.1 Network Topologies
 - LAN
 - WAN
 - MAN
- 2.2 Networking Model
 - OSI Model
 - TCP/IP Model
- 2.3 Network Adapters
- 2.4 Introducing Protocols
- 2.5 Cabling and Troubleshooting



3: Introduction to various Networking Devices

- 3.1 Routers
- 3.2 Switches
- 3.3 Modems
- 3.4 Hubs
- 3.5 Wired and Wireless Technology

4: Inside PC

- 4.1 Opening the PC and Identification
- 4.2 Study of different Blocks
- 4.3 Assembling and Disassembling

5: Network Basic and Configuration

- 5.1 Setting IP Addresses
- 5.2 Sharing Files and Folders
- 5.3 Network troubleshooting
- 5.4 PING test, ipconfig etc.

6: Introduction to Server and Network Security

- 6.1 Types of Server
 - Files Server
 - E-Mail Server
 - Proxy Server
- 6.2 Basics of Internet and Intranet
- 6.3 Types of Internet Connections
 - Dialup, Broadband, Leased Line, Wi-Fi, 2G, 3G, 4G, www, E-Mails, Search Engines, Social Networking
 - Cloud Application
 - Audio-Video Conferencing
 - Voice Over Internet Protocol(VOIP)
- 6.4 Recovery and Backup
- 6.5 Essential Security Measures