

Courses in Details

Certificate in Information Technology Application (CITA)

Course Module	Module Details
Fundamental	<ul style="list-style-type: none">History and Generations of Computer.Advantage and disadvantage of Computer Block Diagram of a Computer.Description of Different parts of a Computer.System Software and Application Software.Identification of Different parts of a Computer System.Turning a computer system on and off.
Windows OS	<ul style="list-style-type: none">Identifying different Desktop Icons. My Computer, My DocumentsChanging Desktop Backgrounds, Mouse Pointer, Screen Saver Notepad, WordPad, MS Paint
MS Word	<ul style="list-style-type: none">Introduction to MS Office.Word Processing Software.Document formatting options.Tables, Bullets and Numbering.Font, Alignment, paragraph formattingInsert Picture, Clipart, Shapes, WordArtHeader & Footer, Text BoxPage Layout, Mail MergeSpelling & Grammar
MS Excel	<ul style="list-style-type: none">Introduction to MS OfficeElectronic SpreadsheetCell Formatting OptionsFormulas and Functions (SUM, AVG, COUNT, COUNTIF, SUMIF, MAX, MIN, IF, ROUND)ChartsSort, Filter, What if Analysis, Grouping SubtotalPivot Table
Visual FoxPro 6.0	<ul style="list-style-type: none">Basic information of DBMSTypes of DBMSBasic information about FoxPro. • <div>Commands: <div>CreateAppendInsert</div><div>Modify structureDisplayDelete</div><div>PackZapRecall</div><div>BrowseEditReplace</div><div>Set date to dmy/mdy/ymd</div></div> <ul style="list-style-type: none">View creationForm creation (calculation in got focus event)Report creation

MS PowerPoint	<ul style="list-style-type: none"> • Creating Slide Show by using Animation Technique. • Slide Master. • Clip Art. Picture Editing
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Diploma in Information Technology Application (DITA)	
Course Module	Module Details
MS Access	<ul style="list-style-type: none"> • Examine database concepts and explore the Microsoft Office Access environment. • Design a simple database. • Build a new database with related tables. • Manage the data in a table. • Query a database using different methods. • Design a form. • Generate a report. • Import and export data. • Design a Database • Build a Database • Work with Forms • Sort, Retrieve, Analyze Data • Work with Reports • Access with Other Applications • Manage an Access Database
Algorithm and flowchart	<ul style="list-style-type: none"> • Basic Concept of algorithm and flowchart. Benefits of Using algorithms and flowcharts. • Basic/Common flowchart Symbols, Basic Problem Solving through algorithm and draw the flow chart (Example: Sum of two Numbers).

Visual Basic	<ol style="list-style-type: none"> 1) Introduction to Visual Basic: Introduction Graphical User Interface (GUI), Programming Language (Event Driven), The Visual Basic Environment, How to use Visual Basic compiler to compile / debug and run the programs. 2) Introduction to Visual Basic Controls: Textboxes, Frames, Check Boxes , Option Buttons, Images, Setting a Border and Styles, The Shape Control, The line Control, Working with multiple controls and their properties, Designing the User Interface, Keyboard access, tab controls, Coding for controls. 3) Variables: Variables Public, Private, Data Types, Constants, Declaring variables, Scope of variables, Val Function, Arithmetic Operations. 4) Decision and Conditions: If Statement, Comparing Strings, Compound Conditions (And, Or, Not), Case Structure, Using If statements with Option Buttons and Check Boxes, Displaying Message in Message Box, Testing whether Input is valid or not. 5) Menus defining / Creating and Modifying a Menu, Using common dialog box. 6) Sub-Procedures and Sub-functions. 7) Multiple Forms Creating, adding, removing Forms in project, Hide, Show Method, Load, Unload Statement, Me Keyword, Referring to Objects on a Different Forms 8) List, Loops and Printing: List Boxes & Combo Boxes, Filling the List using Property window / Add Item Method, Clear Method, List box Properties, Removing an item from a list, List Box/ Combo Box, Do/Loops, For/Next Loops, Using MsgBox Function, Using String Function, Printing to printer using Print Method. 9) Single-Dimension Arrays 10) Accessing Database File: Creating the database files for use by Visual Basic (Using MSAccess), Using the Data Control, setting its property, Using Data Control with forms, navigating the database in code (the record set object using the move next, moveprevious, move first and move last methods, checking for BOF and EOF, using list boxes and combo box as data bound controls, updating a database file (adding, deleting records).
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Internet and Email	<ul style="list-style-type: none"> • Internet Basics: What is Internet? How Internet works? Types of Internet Browsers and Web pages. • Introduction to Web: Overview of Internet and www. Web pages, home page, Web browsers, search Engines, web sites and servers. • Internet Concepts: Opening websites and browsing. Writing, reading and sending emails. Connecting to Internet. Browsing popular sites and using search engines.
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Course Module	Module Details
C++	<ol style="list-style-type: none"> 1) Concept of OOP, Procedural programming. Difference between this two. 2) Concept of compilation, assembling and Running C++ Source code. 3) <p>Basic structure of C++ Programming.</p> <ol style="list-style-type: none"> 4) Data type and variable declaration. 5) Uses of Operators. 6) Conditional statement (if , if else , if else if else , case) 7) Array <ol style="list-style-type: none"> a) Declaring Array b) Initializing Arrays c) Accessing Array Elements d) Array Shorting(BubbleShort) e) Character Array 8) Function <ol style="list-style-type: none"> a) Function Declarations b) Argument Passing c) Value Return d) Overloaded Function Names e) Default Arguments 9) Class and Objects <ol style="list-style-type: none"> a) Making sense of core object concepts (Encapsulation, Abstraction, Polymorphism, Classes, Messages Association, Interfaces) b) Implementation of class in C++ 10) Inheritance <ol style="list-style-type: none"> a) Single Inheritance b) Multiple Inheritance c) Hierarchical Inheritance d) Multilevel Inheritance Hybrid Inheritance (also known as Virtual Inheritance)

Visual Basic.Net	<ul style="list-style-type: none"> • Visual Basic.NET and the .NET Framework: Introduction to .net framework -Features, Common Language Runtime (CLR) ,Framework Class Library (FCL).Visual Studio.Net – IDE, Languages Supported, Components. Visual Programming, VB.net- Features, IDEMenu System, Toolbars, Code Designer, Solution Explorer, Object Browser, Toolbox, Class View Window, Properties Window, Server Explorer, Task List, Output Window, Command Window. • Elements of Visual Basic.NET: Properties, Events and Methods of Form, Label, Text Box, List Box, Combo Box, Radio Button, Button, Check Box, Progress Bar, Date Time Picker, Calendar, Picture Box, HScrollbar, VScrollbar, Group Box, Tool Tip, Timer. • Programming in Visual Basic .NET: Data Types, Keywords, Declaring Variables and Constants, Operators ,Understanding Scope and accessibility of variables, Conditional Statements- If- Then, If-Then-Else, Nested If, Select Case, Looping Statement- Do loop, For Loop, For Each-Next Loop, While Loop, Arrays- Static and Dynamic. • Functions, Built-In Dialog Boxes, Menus and Toolbar: Menus and toolbars- Menu Strip, Tool Strip, Status Strip, Built-In Dialog Boxes –Open File Dialogs, Save File Dialogs, Font Dialogs, Color Dialogs, Print Dialogs, Input Box, MsgBox, Interfacing With End user- Creating MDI Parent and Child, Functions and Procedures- Built-In FunctionsMathematical and String Functions, User Defined Functions and Procedures.
JAVAScript	<ul style="list-style-type: none"> • Creating scripts for Web for Dynamic websites using Java Script. • Creating scripts for Web for Dynamic websites using VB Script. • Using ASP to create dynamic web pages enabled with forms and database usage. • Knowledge of Internet, Web design techniques and study of designs as per content Create interactive animations and applications for web using Flash. • Java scripting: Creating scripts for Web for Dynamic websites Validation on Forms.
VBScript	<ul style="list-style-type: none"> • Introduction to VBScript • Declaring and Using Variables in VBScript • Operators, Operator precedence and Constants in VBScript • Using Conditional Statements in VBScript • Using Loops in VBScript • Using Procedures and Functions in VBScript

Certificate in Financial Accounting System (CFAS)

Course Module	Module Details
Fundamental	<ul style="list-style-type: none"> • History and Generations of Computer. • Advantage and disadvantage of Computer Block Diagram of a Computer. • Description of Different parts of a Computer. • System Software and Application Software. • Identification of Different parts of a Computer System. • Turning a computer system on and off.

Windows OS	<ul style="list-style-type: none"> Identifying different Desktop Icons. My Computer, My Documents Changing Desktop Backgrounds, Mouse Pointer, Screen Saver Notepad, WordPad, MS Paint
MS Word	<ul style="list-style-type: none"> Introduction to MS Office. Word Processing Software. Document formatting options. Tables, Bullets and Numbering. Font, Alignment, paragraph formatting Insert Picture, Clipart, Shapes, WordArt Header & Footer, Text Box Page Layout, Mail Merge Spelling & Grammar
Tally	<p>Introduction to Accounting</p> <ul style="list-style-type: none"> Basics of Accounting, Accounting Concepts, Double Entry Concept, Golden Rule of Accounting, Voucher Entry, Ledger Posting, Final Account Preparation. Cash Book. Ratio Analysis Depreciation, Stock Management, Analysis of VAT, Cash Flow, Fund Flow <p>Features of Tally</p> <ul style="list-style-type: none"> Accounting on Computers Introduction – Reports. Business Organizations (Different areas like Schools, Colleges, Shops, Factory etc) Double entry system of bookkeeping. Budgeting Systems, Scenario management and Variance Analysis. Costing Systems, Understanding Ratios, and Analysis of financial statements. Inventory Basics, POS Invoicing, TDS, TCS, VAT & Service Tax Processing in Tally. Interface in Different Languages. Processing Payroll Functions in Tally what is Management Control Systems Tally Fundamentals (Learning how to use of Tally) Processing Transactions in Tally. Report Generation (Creating statements like Invoice, Bill, Profit & Loss account etc.) Cost Centre & Cost Category Cash Flow Statement and Funds Flow Statement Analyzing and Managing Inventory. Point of Sale, Taxation, Multilingual Functionality Payroll Accounting, Systems Administration and Other Utilities, Backup & Restore of Company. User Creation.
EX-NGN	<ul style="list-style-type: none"> Balance Sheet, Voucher, Wbst, Cst, Discount Calculation, Item Creation, Stock Maintain, Apply Wbst, Cst, Disc On Voucher

Course Module	Module Details
MS Excel	<ul style="list-style-type: none"> • Introduction to MS Office • Electronic Spreadsheet • Cell Formatting Options • Formulas and Functions • Charts • Sort, Filter, What if Analysis, Grouping Subtotal • Pivot Table
Visual FoxPro	<ul style="list-style-type: none"> • Basic information of DBMS • Types of DBMS • Basic information about FoxPro. • Commands: <i>Create</i>, <i>Modify structure</i>, <i>Pack</i>, <i>Browse</i>, <i>Set date to dmy/mdy/ymd</i>, <i>Edit</i> • View creation • Form creation (calculation in got focus event) • Report creation
Microsoft PowerPoint	<ul style="list-style-type: none"> • Creating Slide Show by using Animation Technique. • Slide Master. • Clip Art. Picture Editing
FACT 26.01	Balance Sheet, Voucher Creation, Item Creation and Stock Maintain Vat Cash Book, Debtor and Creditor Creation and Bill Deviation, and Document Class.
Advanced Tally	Project on Details of A Company On Tally Erp9

Accord	Balance Sheet, Voucher Creation, Item Creation, Vat, Cash Book
I n t e r n e t a n d E m a il	<ul style="list-style-type: none"> • Internet Basics: What is Internet? How Internet works? Types of Internet Browsers and Web pages. • Introduction to Web: Overview of Internet and www. Web pages, home page, Web browsers, search Engines, web sites and servers. • Internet Concepts: Opening websites and browsing. Writing, reading and sending emails. Connecting to Internet. Browsing popular sites and using search engines.

Advance Diploma in Financial Accounting System (ADFAS)

Course Module	Module Details
Payroll System	<ol style="list-style-type: none"> 1) Introduction to Payroll 2) Record Keeping 3) Employee Records 4) Salary Payments 5) Deductions 6) Pay slips 7) Tax Considerations 8) Dealing With Outside Contractors 9) Sick and Maternity Leave 10) Dealing With Errors 11) Payroll Software
Taxation, TDS and e-return	<ol style="list-style-type: none"> 1) To provide working knowledge of framework of taxation system in India. 2) To provide thorough knowledge of various concepts and their application relating to direct tax laws with a view to integrating the relevance of these laws with financial planning and management decisions. 3) To provide thorough knowledge of laws and practices of indirect taxes viz. central excise, services tax, customs and central sales tax in all aspects including tax planning and management.

Accounting Software "Busy"	<ul style="list-style-type: none"> Financial Accounting (Multi-Currency) Inventory Management (Multi-location) Production / Bill of Material Sales / Purchase Quotations Sales / Purchase Order Processing Fully User-configurable Invoicing User-configurable Documents / Letters User-configurable Columns in Reports CST / VAT Reports (State-specific) Mfg / Trading Excise Registers MIS Reports and Analysis
Accounting Software ACE	Computerised Accounting – ACE <ul style="list-style-type: none"> Installing New Account (creating a new company) Creation , Modification and Deletion - Group and Ledger Accounting Voucher and Inventory Entries VAT – Accounting Entries Cost-Centre Finalisation of Accounts

Certificate in Desk Top Publishing (CDTP)

Course Module	Module Details
Fundamental	<ul style="list-style-type: none"> History and Generations of Computer. Advantage and disadvantage of Computer Block Diagram of a Computer. Description of Different parts of a Computer. System Software and Application Software. Identification of Different parts of a Computer System. Turning a computer system on and off.
Windows OS	<ul style="list-style-type: none"> Identifying different Desktop Icons. My Computer, My Documents Changing Desktop Backgrounds, Mouse Pointer, Screen Saver Notepad, WordPad, MS Paint
MS Word	<ul style="list-style-type: none"> Introduction to MS Office. Word Processing Software. Document formatting options. Tables, Bullets and Numbering. Font, Alignment, paragraph formatting Insert Picture, Clipart, Shapes, WordArt Header & Footer, Text Box Page Layout, Mail Merge Spelling & Grammar

Adobe PageMaker	<ul style="list-style-type: none"> • Introduction to various versions, concepts and applications of PageMaker • Guides and rulers. Drawing tools. Fills and outlines. • Creating new Filelets • Entering text • Defining style • Saving files • Creating Frame • Inserting and removing pages • Adding shapes • Creating header and footer • Using story Editor • Developing long documents • Using colour • Printing • Practice on Multilingual software like INDIC
CorelDraw	<ul style="list-style-type: none"> • Study Printing technology and uses • Introduction to colors • Primary and secondary in both RGB and CMYK schemes/modes. • Importance of each primary and secondary color. • Proper Application of colors. • Analyze colors applied in different print media. • Visualize look and feel of a print or a web to apply colors • Study different fonts and typography issues with Web design • Study Designing standards, Print layout Design and creative visualization for intuitive layouts • Introduction to various versions, concepts and applications of Corel Draw Know the difference between Vector Graphics and Raster Graphics.
CorelDraw	<ul style="list-style-type: none"> • Know the difference between Screen Graphics and Pixel Graphics. Understand the following formats: .pdf, .eps, .svg, .svgz, .psd, mp, .gif, .jpg, .pcx, .pct, .png, .raw, .sct, .tga, .tiff, .vst • Drawing—lines, shapes .inserting-pictures, objects, tables, templates, • Use of various tools such as Pick tools, Zoom tools, Free hand tool, square tool, rectangle tool, Text tool, Fill tool etc. and all fonts used in designing of monograms, logos, posters, stickers, greeting cards, wedding cards, visiting cards, etc. • Adding special effects, Exporting drawings, outlining and filling objects, • Inserting symbols and Clip arts. • Exporting file • Use features of Corel draw to create artistic characters and shapes.
Bengali Type	Bengali typing practice using Bangla Word

Diploma in Desk Top Publishing (DDTP)

Course Module	Module Details
Photo Shop	<ul style="list-style-type: none">• Introduction to various versions, concepts and applications of Photoshop• Understanding the Print Industry, Printing technology and uses• Understanding Design principles and color theory• Understanding the use of various fonts and typo issues with Web design• Understanding Designing standards, Print layout Design and creative visualization for intuitive layouts• Photoshop-History and introduction, the file menu, the tools, Drawing lines and shapes.• Photo editing /inserting starting with Setting Up, introduction of layers• The Interface Managing Palettes Working With Photoshop Tools• Working With Layers• WEB & WEB GALLERY using internet explorer in photo shop.• Creating animations using image ready, creating animations and presentations.• Tips and tricks in Photoshop and formats, working with Creating Illustrations apply different color scheme Palettes Digital Imaging.• Working with Images in Photoshop. Working with Palettes, i.e., layers palette, navigator palette, info palette, color palette, Swatches palette, Styles palette, History palette, Actions Palette, Tool preset palette, Channels Palette and Path Palette. Working with Layers.• Photo editing, Image adjustment options – Labels, Auto labels, Auto contrasts, Curves, Color balance, Brightness / Contrast, Posterize, Variations.• Preparing the file and work area. Creating different shapes.• Creating three Dimensional effects using Layers.• Working with the magic wand tool and lasso tool.• Creating images using Symbol Sprayer Tool.• Edit the images using options of Warp Tool. Using Dodge tool, Burn tool, Sponge Tool and Clone Stamp Tool.• Editing Selections.• Creating images and giving special effects using Filters.• Using Layer Styles.• Produce an image by mixing two or more different images using Layer Masking and Vector Masking.

Flash	<ul style="list-style-type: none"> • Media Design issues, Media selection issues, Selection of Media. • E-learning Standards: Concepts SCROM concepts : Concepts • Adobe Flash: Concept and application • Working with Flash Action Script • Adobe Authorware: Concept & application related media • Understanding the SCROM compliance issues for e-learning • Create interactive animations and applications using Flash • Create Interactive Applications and e-learning modules Twitter Bootstrap and Zurb foundation: Concept and application
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Freehand	<ul style="list-style-type: none"> • Concept about Document Setup • Modify menu • Join, Combine, Arrange • Text Menu, Effect Menu • Attach, attach to path, Flow, Inside, • Fish Eye Lens, Extrude • Smudge Tool, Blend Tool • Perspective Tool, Knife Tool, Eraser Tool
Internet and Email	<ul style="list-style-type: none"> • Internet Basics: What is Internet? How Internet works? Types of Internet Browsers and Web pages. • Introduction to Web: Overview of Internet and www. Web pages, home page, Web browsers, search Engines, web sites and servers. • Internet Concepts: Opening websites and browsing. Writing, reading and sending emails. Connecting to Internet. Browsing popular sites and using search engines.

Advance Diploma in Desk Top Publishing (ADDTP)

Course Module	Module Details
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Adobe Illustrator

- **Introduction:** Creating a new document more about the document page tool
- **Selections:** Selection tool, direct selection, group selection, selection lassos, selecting stray points, magic wand selection
- **The Pen Tools:** Pen introduction, convert anchor point, additional and sub anchors, joining anchors
- **Layers and Grouping:** Layers introduction, organizing layers, selecting layers, grouping layers, group, selection, duplicating layers, sub-layers, collect and flatten, creating templates, placing paths
- **The Stroke:** Stroke basics, capitals and joining, the dashed line, scaling strokes
- **Type:** The type tool, area type tool, path type, vertical type tool, block text, rows and columns, wrap text, missing font, creating outlines, spell checking, font attributes, character palette, formatting paragraphs, type transformation
- **Shape Objects:** Rectangle tool, rounded rectangle tool, ellipse tool, polygon tool, star tool, flare tool the spaz modifier
- **Transformations:** Scale tool, scaling patterns, rotation tool, rotating a pattern, reflect tool, twist tool, sheer tool, reshape tool, :re-positioning art
- **Aligning and Distributing:** Object alignment, mouse directed movement
- **Line Tools:** Line segment tool, arc tool, spiral tool, rectangular grid tool, polar grid tool, spaz line tool, moving lines
- **Compound Path and Clipping Mask:** Clipping masks, clipping paths
- **Applying Color:** Color introduction, adobe color picker, color palette, swatches palette, color picker theft
- **The Pencil Tools:** Basic pencil tool, smooth tool, eraser tool
- **The Brush Tool:** Paintbrush introduction, calligraphic brush, art brush, pattern brush, loading and saving brushes
- **Gradients:** Gradients introduction ,editing gradients, gradient libraries
- **Transparency and Masking:** Object opacity, targeted transparency, transparency clipping, transparency masking, knockout group, blending modes
- **Enveloping and Meshes:** Envelope introduction, using the warp, using the mesh, , utilizing the top object, text distortions, envelope options
- **Smart Guides and Rulers:** Rulers introduction, creating guides, smart guides, extruding text, smart guide options, grids, measure and info tools
- **Scissor and Knife:** The scissor tool, the knife tool
- **Pathfinder:** Pathfinder shape modes, using pathfinders
- **Liquefy:** Liquefy tools, more lignifications
- **Appearance and Styles:** Styles introduction, multiple strokes and fills, converting effect to shape, group appearance, the text bug, distort and transform, offset path effect, pathfinder effects rasterizing, document rasterization, stylize effects, pixel effects, warp effects, moving and linking styles, sticky styles, reducing and clearing styles, making and saving styles, over-riding character color.
- **Filters:** Filter introduction, creating trim marks, pen and ink, more lignifications
- **The Blend Tool:** Blending introduction, blending multiple objects

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| | <ul style="list-style-type: none">• Charts and Graphs: Creating graphs, changing the graph type, coloring graphs, styling type, column designs, value divisions, design markers, other line graphs• RGB and Screen Graphics: RGB introduction, snap to pixel, moving snap pixel. |
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	<ul style="list-style-type: none"> • Saving for the Web: Viewing for the web, web prep overview, sizing images, saving as jpeg, matting a jpeg, saving as gif, making a lossy gif, gradients and gif, saving as swf, swf problems saving as svg, svg effects • Slicing for the Web: Creating slices, slice options, optimizing slices • Image Maps: Creating image maps, saving and previewing, • Symbols and Symbol: Symbol introduction, creating custom symbols, building blocks, symbol sprayer, symbol shifter tool, symbol scruncher, symbol sizer, symbol spinner, symbol stainer, symbol screener, symbol styler, saving default symbols • Image and Photoshop Integration: Placing images, linking, Photoshop layers, type for Photoshop, Photoshop shapes • Variables Palette: Making variables, styling variables, automating printing, graph variables, changing data, saving and loading data, linked images, deleting a data set • Auto Trace Feature: Auto trace, auto trace preferences • Customizing the Keyboard: Creating your own shortcuts
Adobe Indesign	<ul style="list-style-type: none"> • Introduction to Adobe InDesign • Creating and Viewing Documents • Understanding Your Workspace • Pages • Working with Type • Working with Graphics • Formatting Objects • Working with Color • Points and Paths • Managing and Transforming Objects • Character and Paragraph Formatting • Using Styles • Tables • Long and Interactive Documents • Packaging and Printing
Web design using Dreamweaver	Design Professional Web Layouts, Author and Publish websites on the internet using Dreamweaver

Certificate in Basic Multimedia (CBM)

Course Module	Module Details
Creating Illustrations	Using Adobe Illustrator CS2

Imaging	<ul style="list-style-type: none"> • Computer Graphics :Concept • Interactive Media Design Standards : Concept • Understanding how images are formed, image file formats and their properties <p>Graphic reproduction</p> <ul style="list-style-type: none"> • Tonal value. Tonal gradation. • Continuous tone. Half tone, Moiré pattern, Highlight, Middle Tone, Shadow areas contrast & details <p>Scanning</p> <ul style="list-style-type: none"> • Principle of scanning • Types of scanners (Flatbed & Drum) and its use • Resolutions, DPI. LPI. Graphic drawings inputs of pictures, sketches Photo editing Software. • Preparation of OCR <p>Adobe Photoshop</p> <ul style="list-style-type: none"> • Image Fundamentals: Digital Image pixel. Resolution. DPL, Raster image/Bitmaps, Vector Image/Graphics. • Various File Format: Bitmap, JPEG, PSD. PDD, TIFF, GIF, EPS. • Understanding Various Tools: Marquee - Rectangular/Elliptical. Move Lasso, Polygonal Lasso Magnetic Lasso, Magic wand. Crop Air brush, Paint brush, Pencil, Rubber Stamp, Pattern stamp, Erase, Paint bucket, Direct selection, Path component selection, Pen custom shape, Eye dropper, Hand Zoom. • Understanding various Palettes:-Navigator, info, Color, Swatches Style History, Layers. • Paths, Character, Paragraph, Foreground Colors. Background Colors. Default colors. • Switch colors. • Details about Status Bar. Option Bar. • Edit Image in Standard mode. Quick Mask Mode. • Various Image Display Options: - Standard Screen mode. Full Screen Mode with Menu Bar, Full Screen mode. • Various Edit Commands:- Transform Preferences, Define Brush etc. • Various Image Commands Inverse. Adjust, Extract, Liquefy etc. • Mode RGB /CYMK /LAB /Grayscale. Adjust Brightness/ Contrast. Hue/ Saturations, desecrate, Replace Colors, invert, Variations, Canvas size, Rotate canvas, crop, Trim • Various Layer Commands. Rearranging Layers, Lock Layers, Merge down, Merge. • Visible, Flatten Image. Working With layers set. • Various Select commands • Various Filter Effects Render 3D Transform, Lens Flare. Lightning Effects. Motion Blur. Radial Blur... • Various View Commands. • Print Option. Industrial visit of graphics design studios / Add agency / News Paper /Prepress Bureau and Printing Press
2D Animation	<p>Flash</p> <ul style="list-style-type: none"> • Media Design issues, Media selection issues, Selection of Media. • E-learning Standards: Concepts

	<ul style="list-style-type: none"> • SCROM concepts : Concepts
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2D Animation	<ul style="list-style-type: none"> • Adobe Flash :Concept and application • Working with Flash Action Script • Adobe Authorware: Concept & application related media • Understanding the SCROM compliance issues for e-learning • Create interactive animations and applications using Flash • Create Interactive Applications and E-learning modules • Twitter Bootstrap and Zurb foundation: Concept and application
Authoring	Using Adobe Direct
Sound Editing	Sound forge <ul style="list-style-type: none"> • Different Audio file formats – AVI, WAV, WMA, MP3, MP4 • Audio editing tools Audio/ Sound effects • Understanding and working Sound editing Software. • Recording of Audio, importing of Audio files. Editing of Audio and inserting effects.

Certificate in Computer Hardware Maintenance (CCHM)

Course Module	Module Details
Fundamental	<ul style="list-style-type: none"> • History and Generations of Computer. • Advantage and disadvantage of Computer Block Diagram of a Computer. • Description of Different parts of a Computer. System Software and Application Software. • Identification of Different parts of a Computer System. Turning a computer system on and off

Basic Electronics	<ul style="list-style-type: none"> • Punctuality and Discipline expected of trainees. Course duration, methodology and structure of the training program. • About the institute and infrastructure. • Safety in moving and shifting heavy and delicate equipments. • Artificial respiration, Electrical safety. • Concept of current and voltage. AC, DC Supply indicating lamps. Different types of Fuses and their applications. Different types of connectors used in electrical and electronic applications. Different types of switches used in electrical and electronic applications. • Measuring instruments, MC, MI type, Ammeter, Voltmeter, Multi meter for measuring voltage and current. Construction, characteristics/ features and specification. • Digital Multi meter • Meaning of resistance, continuity and continuity testers. Multi meter for checking continuity. • Concept of Power and measurement using V&I meter and Power meter.
Digital Electronics	<ul style="list-style-type: none"> • Number systems and conversions. Classification of digital IC's. Use of data book for identification of digital IC's. • Basic LOGIC GATES and truth table. Boolean algebra. • Logic families, logic levels, propagation delay. Multiple input gates. • XOR, XNOR gates and application. • Simplification of Boolean equations. • Combinational logic circuits. • Identify the specifications of given digital IC's referring to data books. • Verify the truth table of two input OR, NOR, AND, NAND, NOT gates. • Verify of truth table of multiple input logic gates. • Verify the truth table of XOR and XNOR Gates. • Realization of different gate type using NAND gates. • Verification of Boolean laws.

Basic Hardware and
Computer Parts

- Types of I/O devices and ports on a standard PC for connecting I/O devices.
- Function of keyboard, brief principle, types, interfaces, connectors, cable.
- Function of Mouse, brief principle, types, interfaces, connectors, cable.
- Function of monitor, brief principle, resolution, size, types, interfaces, connectors, cable.
- Function of Speakers and Mic, brief principle, types, interfaces, connectors, cable.
- Function of serial port, parallel port, brief principle of communication through these ports, types of devices that can be connected, interface standards, connectors, cable.
- Precaution to be taken while connecting/removing connectors from PC ports. Method of ensuring firm connection.

Types of Processors and their specifications (Intel: Celeron, P4 family, Xeon, and AMD).

- Memory devices, types, principle of storing. Data organization 4 bit, 8 bit, word.
- Semiconductor memories, RAM, ROM, PROM, EPROM, EEPROM, Static and dynamic.
- Example of memory chips, pin diagram, pin function of
- Concept of track, sector, cylinder. FD Drive components- read write head, head actuator, spindle motor, sensors, PCB.
- Precaution and care to be taken while dismantling Drives.
- Drive bay, sizes, types of drives that can be fitted. Precautions to be taken while removing drive bay from PC.
- HDD, advantages, Principle of working of Hard disk drive, cylinder and clusture, types, capacity, popular brands, standards, interface, jumper setting. Drive components- hard disk platens, and recording media, ,air filter, read write head, head actuator, spindle motor, circuit board, sensor, features like head parking, head positioning, reliability, performances, shock mounting capacity. HDD interface IDE, SCSI-I/2/3 comparative study. Latest trends in interface technology in PC and server HDD interface.
- Precautions to be taken while fitting drives into bays and bay inside PC cabinet.
- CMOS setting (restrict to drive settings only).
- Meaning and need for using Scan disk and defrag.
- Basic blocks of SMPS, description of sample circuit.

Hardware Identification

- Identify the front and rear panel controls and ports on a PC
- Cases
- Cooling
- Power Supplies
- Power Supply Connections
- Motherboard Connections
- Motherboard Components
- CPU (Processor)
- RAM (Memory)
- Hard Drive Connections
- Mechanical vs. Solid State Drives
- ROM Drives
- Video Cards

- Sound Cards

Hardware Remove-Test-Replace/ Install

- Removing RAM
- Installing RAM
- Removing a ROM Drive
- Installing a ROM Drive
- Removing a Hard Drive
- Installing a Hard Drive
- Defects related to SMPS, its cable, connector and servicing procedure.

Basic Hardware and
Computer Parts

- Removing Fans
- Installing Fans
- Removing the Motherboard
- Installing the Motherboard
- Removing the Processor
- Installing the Processor
- Installing a CPU Cooler
- Troubleshooting Checking the Power Switch
- Removing the CMOS Battery
- Seating Expansion Cards

Software Installation

- Types of software. System software Operating System, Compiler. Application software like MS office. Functions of an operating system. Disk operating system.
- Concept of GUI, Modes of starting on different occasions.
- Desktop, Icon, selecting, choosing, drag and drop.
- My computer, network neighborhood / network places.
- Recycle bin, briefcase, task bar, start menu, tool bar, and menus.
- Windows Explorer.
- Properties of files and folders.
- Executing application programs.
- Properties of connected devices.
- Applications under windows accessories.
- Windows Help.
- Finding files, folders, computers.
- Control panel. Installed devices and properties. Utilities for recovering data from defective/bad hard disks.
- Introduction to removable storage devices, Bulk data storage devices-magnetic, optical, magneto optical drives, WORM drives.
- CD ROM drives- Technology, Types of CD drives, working principle application.
- Minor repairs and maintenance of CD ROM drives.
- Technology, working principle, capacity, media of DVD ROM drive.
- Important parts and functions of DVD ROM drive.
- Minor repair works on a DVD ROM drive.
- Technology, working principle, capacity, media of CD WRITER and use different modes of writing on a CD. Using of utility for CD writing.
- Minor repair works on a CD WRITER.
- Latest trends in backup devices/media

Windows Installation

- A walkthrough of installing Windows 7 / 8
- A walkthrough of installing Windows XP
- Imaging: create a Windows system image
- How to Backup/Restore your Windows partition with the bootable image disk
- Duplicating a partition (creating a multi boot system)
- A multi boot system: the Windows boot manager vs. an alternative boot manager
- Setting up a multi boot/dual boot system
- Dual Boot Ubuntu and Windows
- Windows XP registry tweaks

Software Installation	Software Installation <ul style="list-style-type: none"> • Installing a software program in windows • How to run a file from MS-DOS • Extracting or uncompressing a compressed file • How to compress or make files into one file • Extracting files from the Windows cabinets • Uninstalling Windows software • Unable to remove a program from Windows Add/Remove programs
Troubleshooting	<ul style="list-style-type: none"> • The danger in not diagnosing problems first • Learn how to test your RAM • Check your hard drive for errors

Diploma in Computer Hardware Maintenance (DCHM)

Course Module	Module Details
Basic Networking	<ul style="list-style-type: none"> • Introduction to Computer Networks – Advantages of Networking, Peer-to-Peer and Client/Server Network. • Network Topologies – Star, Ring, Bus, Tree, Mesh, Hybrid. • Type of Networks – Local Area Networks (LAN), Metropolitan Area Networks (MAN), Wide Area Networks (WAN) and Internet, Ethernet, Wi-Fi, Bluetooth, Mobile Networking, Wire and wireless Networking. • Difference between Intranet and Internet. Communication Media and Connectors • Unshielded twisted-pair (UTP), shielded twisted-pair (STP), Fiber Optic and coaxial cable: RJ-45, RJ-11, BNC. • Understanding color codes of CAT5 cable. 568A and 568B convention. Introduction to Data Communication – Analog and Digital Signals, Simplex, Half- Duplex and Full-Duplex transmission mode. Components of the Computer Network, Crimping, Punching and Cabling <ul style="list-style-type: none"> • Familiarization with various Network devices, Connectors and Cables. • Understanding the Layout of network. • Crimping practice with straight and cross CAT 5 cables. • Punching practice in IO Box and patch panel. Crimping and making cables. Create cabling in a lab with HUB/Switch and IO Boxes and patch panel. Fitting Switch Rack.

Setting up different Network	<p>Install and configure a Network</p> <ul style="list-style-type: none"> • OSI Model - The functions of different layers in OSI model • Network Components – Modems, Firewall, Hubs, Bridges, Routers, Gateways, Repeaters, Transceivers, Switches, Access point, etc. – their functions, advantages and applications. • Installing and Configuring a Peer-to-Peer Network using Windows Software. • Making cables by crimping. • Connect computers using Bluetooth. • Connecting computers using Wi-Fi configuration. • Basic Programmable switch Configuration <p>IP Addressing and TCP/IP</p> <ul style="list-style-type: none"> • Protocols, TCP/IP, FTP, Telnet etc., Theory on Setting IP Address (IP4/IP6) and Subnet Mask, Classes of IP Addressing • IP addressing technique (IP4/IP6) and Sub-netting and Super-netting the network. <p>Other Network Protocols</p> <ul style="list-style-type: none"> • Simple Mail Transfer Protocol (SMTP), Telnet, File Transfer Protocol (FTP), Hyper Text Transfer Protocol (HTTP), Simple Network Management Protocol (SNMP). • Network Security Concept of Dynamic Host Control Protocol. • Working with SMTP, TELNET, FTP, HTTP, SNMP etc. Practice on configuring DHCP.
Setting Up Internet	<p>Sharing Resource and Internet connection</p> <ul style="list-style-type: none"> • Concept of Internet. Architecture of Internet. DNS Server. Internet Access Techniques, ISPs and examples (Broadband/Dialup/Wi-fi). • Concept of Social Networking Sites, Video Calling & Conferencing. Concept of VIRUS and its Protection using Anti Virus, UTM and Firewall. • Sharing Resource and Advance Sharing Setting. • Installing Proxy Server. • Exposure and using Internet. Setting e-mail accounts. Conferencing. • Installing and Configuring Internet Connection on a PC using Broadband or Dongle
Server Installation and Basic Configuration	<ul style="list-style-type: none"> • Server concepts, Installation steps, configuration of server. • Concept of Active Directory and DNS. Setting up of DHCP, Routing and remote access. • Install and configure Windows Server • Configure services like Active Directory, DNS and DHCP. • Configuration of broadband modem and sharing internet connection. • Linux Installation.
Network Troubleshooting	<p>Network Protection and troubleshooting</p> <ul style="list-style-type: none"> • Collaborating using wired and wireless networks, Protecting a Network, Network performance study and enhancement. • Setting up basic protection using public keys and MAC address filters. Integrate wired with wireless network. Power over Ethernet (PoE). Troubleshooting wired and wireless

Классификация

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