CITA		
Course	Course Module	Module Details
CITA	Fundamental	**THEORY:** • 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. **PRACTICAL:** • Identification of Different parts of a Computer System. • Turning a computer system on and off
	Windows OS	**PRACTICAL:** • Identifying different Desktop Icons. My Computer, My Documents • Changing Desktop Backgrounds, Mouse Pointer, Screen Saver Notepad , WordPad, MS Paint
	MS Word	**THEORY:** • Introduction to MS Office• • Word Processing Software **PRACTICAL:** • 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
	MS Excel	**THEORY:** • Introduction to MS Office • Electronic Spreadsheet **PRACTICAL:** • Cell Formatting Options • Formulas and Functions • Charts • Sort, Filter, What if Analysis, Grouping Subtotal • Pivot Table
	Visual FoxPro 6.0	**THEORY & PRACTICAL:** **Basic information of DBMS** Types of DBMS Basic information about foxpro. **Commands** 1. Create 2. Append 3. Insert 4. Modify structure 5. Display 6. Delete 7. Pack 8. Zap 9. Recall 10. browse

		11. edit
		12. replace
		13. set date to dmy/mdy/ymd
		14.view creation
		15.form creation(calculation in got focus event
		16.report creation
	MS PowerPoint	**PRACTICAL:** • Creating Slide Show by using Animation Technique. • Slide Master. • Clip Art. Picture Editing

DITA		
Course	**Course Module**	**Module Details**
DITA	MS ACCESS	**THEORY &PRACTICAL:** ▪ 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. Outline Access Basics ▪ Design a Database ▪ Build a Database ▪ Work with Forms ▪ Sort, Retrieve, Analyze Data ▪ Work With Reports ▪ Access with Other Applications ▪ Manage an Access Database
DITA	Visual Basic	**THEORY &PRACTICAL:** 1) Introduction to Visual Basic: Introduction Graphical User Interface (GUI), Programming Language (Event Driven), The Visual Basic Environment, How to use VB complier to compile / debug and run the programs. 2) Introduction to VB Controls Textboxes, Frames, Check Boxes , Option Buttons, Images, Setting a Border & 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 & Conditions If Statement, Comparing Strings, Compound Conditions (And, Or, Not), Case Structure, Using If statements with Option Buttons & 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 / AddItem 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 MS-Access), 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, movepreviouse, move first & move last methods , checking for BOF & EOF, using list boxes & combo box as data bound controls, updating a database file (adding, deleting records) .
DITA	Internet & Email	**THEORY:** **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. **PRACTICAL:** **Internet Concepts** • Opening websites and browsing. Writing, reading and sending emails. Connecting to Internet. • Browsing popular sites and using search engines.

Course	Course Module	Module Details

ADITA	C++	**THEORY &PRACTICAL:**
		
		a) Concept of OOP, Procedural programming. Difference between this two.
		b) Concept of compilation, assembling and Running C++ Source code.
		c) Basic structure of C++ Programming.
		d) Data type and variable declaration.
		e) Uses of Operators.
		f) Conditional statement (if , if else , if else if else , case)
		g) Array
		   i) Declaring Array
		   ii) Initializing Arrays
		   iii) Accessing Array Elements
		   iv) Array Shorting (Bubble Short)
		   v) Character Array
		h) Function
		   i) Function Declarations
		   ii) Argument Passing
		   iii) Value Return
		   iv) Overloaded Function Names
		   v) Default Arguments
		i) Class and Objects
		   i) Making sense of core object concepts (Encapsulation, Abstraction, Polymorphism, Classes, Messages Association, Interfaces)
		   ii) Implementation of class in C++
		j) Constructor and Destructor
		k) Inheritance
		   i) Single Inheritance
		   ii) Multiple Inheritance
		   iii) Hierarchical Inheritance
		   iv) Multilevel Inheritance
		   Hybrid Inheritance (also known as Virtual Inheritance)

	VB.Net	**THEORY & PRACTICAL** **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, IDE- Menu 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,

ADITA

		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, Msg Box, Interfacing With End user- Creating MDI Parent and Child, Functions and Procedures- Built-In Functions- Mathematical and String Functions, User Defined Functions and Procedures. **Advanced Concepts in VB.Net** Object Oriented Programming- Creating Classes , Objects, Fields, Properties, Methods, Events , Constructors and destructors, Exception Handling- Models, Statements, File Handling- Using File Stream Class, File Mode, File Share, File Access Enumerations, Opening or Creating Files with File Stream Class, Reading and Writing Text using Stream Reader and Stream Writer Classes, Data Access with ADO.Net – What are Databases?, Data Access with Server Explorer, Data Adapter and Data Sets, ADO.NET Objects and Basic SQL.
	JAVA SCRIPT	**THEORY:** • 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 **PRACTICAL:** **Java scripting** Creating scripts for Web for Dynamic websites Validation on Forms
	VB SCRIPT	**THEORY & PRACTICAL** • Introduction to VBScript • Declaring and Using Variables in VBScript • Operators, Operator precedence & Constants in VBScript • Using Conditional Statements in VBScript • Using Loops in VBScipt • Using Procedures & Functions in VBScript

CFAS		
Course	**Course Module**	**Module Details**
CFAS	Fundamental	**THEORY:** • 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. **PRACTICAL:** • Identification of Different parts of a Computer System. Turning a computer system on and off
	Windows OS	**THEORY:** • Identifying different Desktop Icons. My Computer, My Documents • Changing Desktop Backgrounds, Mouse Pointer, Screen Saver Notepad , WordPad, MS Paint
	MS Word	**THEORY:** • Introduction to MS Office • Word Processing Software **PRACTICAL:** • 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	**THEORY:** **Introduction to Accounting** • 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 **Features of Tally** • 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 **PRACTICAL:** • 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

		Practical on Features of Tally • Features of Tally (Company creation etc.) Recording Transactions. • Budgeting Systems, Scenario management and Variance Analysis, Use Tally for Costing Ratio Analysis. • 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	**THEORY & PRACTICAL:** • Balance Sheet, Voucher, Wbst, Cst, Discount Calculation, Item Creation, Stock Maintain, Apply Wbst, Cst, Disc On Voucher

DFAS

Course	Course Module	Module Details
DFAS	MS Excel	**THEORY:** • Introduction to MS Office • Electronic Spreadsheet **PRACTICAL:** • Cell Formatting Options • Formulas and Functions • Charts • Sort, Filter, What if Analysis, Grouping Subtotal • Pivot Table
	Visual FoxPro	**THEORY &PRACTICAL:** **Basic information of DBMS** Types of DBMS Basic information about FoxPro. **Commands** 1. Create 2. Append 3. Insert 4. Modify structure 5. Display 6. Delete 7. Pack 8. Zap 9. Recall 10. browse 11. edit 12. replace 13. set date to dmy/mdy/ymd 14.view creation 15.form creation(calculation in got focus event 16.report creation
	MS PowerPoint	**PRACTICAL:** • Creating Slide Show by using Animation Technique. • Slide Master. • Clip Art. Picture Editing
	FACT 26.01	**THEORY &PRACTICAL:** Balance Sheet, Voucher Creation, Item Creation & Stock Maintain, Vat Cash Book, Debtar & Creditor Creation & Bill Dividation, and Document Class.
	Accord	**THEORY &PRACTICAL:** Balance Sheet, Voucher Creation, Item Creation, Vat, Cash Book ***Project on Details of A Company On Tally Erp9
	Internet & Email	**THEORY:** **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. **PRACTICAL:** **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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<tr><td>Course</td><td>Course Module</td><td align="center">Module Details</td></tr>
<tr>
<td>ADFAS</td>
<td>Payroll System</td>
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THEORY & PRACTICAL:

1: Introduction to Payroll

2: Record Keeping

3: Employee Records

4: Salary Payments

5: Deductions

6: Payslips

7: Tax Considerations

8: Dealing With Outside Contractors

9: Sick and Maternity Leave

10: Dealing With Errors

11: Payroll Software

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<td>Taxation And TDS & e-return</td>
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i.   To provide working knowledge of framework of taxation system in India.

ii.   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.

iii.   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.

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<td>Accounting Software "Busy"</td>
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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 & Analysis

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<td>Accounting Software ACE</td>
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Computerised Accounting – ACE
Installing New Account (creating a new company)
• Creation , Modification & Deletion- Group & Ledger
• Accounting Voucher & Inventory Entries
• VAT – Accounting Entries
• Cost-Centre
• Finalisation of Accounts
• Project

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		CDTP
Course	Course Module	Module Details
CDTP	Fundamental	**THEORY:** • 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. **PRACTICAL:** • Identification of Different parts of a Computer System. • Turning a computer system on and off
	Windows OS	**PRACTICAL:** • Identifying different Desktop Icons. My Computer, My Documents • Changing Desktop Backgrounds, Mouse Pointer, Screen Saver Notepad , WordPad, MS Paint
	MS Word	**THEORY:** • Introduction to MS Office • Word Processing Software **PRACTICAL:** • 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	**THEORY:** • Introduction to various versions, concepts and applications of PageMaker • Guides & rulers. Drawing tools. Fills & outlines. **PRACTICAL:** • Creating new Filets • 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 | **THEORY:**
 Print Design Basics
• Study Printing technology and uses
Design Principles & Color Harmony
• Introduction to colors
• Primary and Secondary in both RGB & 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
Typography
• Study different fonts and typo• issues with Web design
Layout Design
• Study Designing standards, Print layout Design and creative visualization for intuitive layouts
Computer Graphics
• Introduction to various versions, concepts and applications of Corel Draw Know the difference between Vector Graphics and Raster Graphics.
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
PRACTICAL:
• 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 & filling objects,
• Inserting symbols & Clip arts.
• Exporting file
• Use features of Corel draw to create artistic characters and shapes. |
| | **BENGALI TYPE** | **PRACTICAL**

Bengali typing practice using Bangla Word |

Course	Course Module	Module Details
DDTP	Photo Shop	**THEORY:** • 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 Understanding and using the computer and Operating System **PRACTICAL:** • Photoshop-History & introduction, the file menu, the tools, Drawing lines & 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 & 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 & Vector Masking.
	Flash	**THEORY:** • Media Design issues, Media selection issues, Selection of Media. • E-learning Standards: Concepts SCROM concepts : Concepts **PRACTICAL:** • Adobe Flash :Concept and application • Working with Flash Action Script • Adobe Authorware: Concept & application related media • Understanding the SCROM compliance issues for Elearning • Create interactive animations and applications using Flash • Create Interactive Applications and Elearning modules Twitter Bootstrap and Zurb foundation :Concept & application

DDTP

	Freehand	**PRACTICAL:** • 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 & Email	**THEORY:** **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. **PRACTICAL:** **Internet Concepts** • Opening websites and browsing. Writing, reading and sending emails. Connecting to Internet. Browsing popular sites and using search engines.

ADDTP		
Course	**Course Module**	**Module Details**
ADDTP	Adobe Illustrator	**THEORY & PRACTICAL:** **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
		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
		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	**THEORY & PRACTICAL:** 1: Introduction to Adobe InDesign 2: Creating and Viewing Documents 3: Understanding Your Workspace 4: Pages 5: Working with Type 6: Working with Graphics 7: Formatting Objects 8: Working with Color 9: Points and Paths 10: Managing and Transforming Objects 11: Character and Paragraph Formatting 12: Using Styles

		13: Tables 14: Long and Interactive Documents 15: Packaging and Printing
	Web Design Use Flas/Dreamweaver	**PRACTICAL:** **Web Publishing using Dreamweaver** • Design Professional Web Layouts, Author and Publish websites on the internet Design Professional Web Layouts, Author and Publish websites on the internet using Dreamweaver

CCHM		
Course	**Course Module**	**Module Details**
CCHM	Fundamental	**THEORY:** • 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. **PRACTICAL:** • Identification of Different parts of a Computer System. Turning a computer system on and off
	Basic Electronics	a) Punctuality and Discipline expected of trainees. Course duration, methodology and structure of the training program. b) About the institute and infrastructure. c) Safety in moving and shifting heavy and delicate equipments. d) First aid. e) Artificial respiration. f) Electrical safety. g) 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. h) Measuring instruments, MC, MI type, Ammeter, Voltmeter, Multi meter for measuring voltage and current. Construction, characteristics/ features and specification. Digital Multi meter i) Meaning of resistance, continuity and continuity testers. Multi meter for checking continuity. j) Concept of Power and measurement using V&I meter and Power meter.
	Digital Electronics	**THEORY:** a) Number systems and conversions. Classification of digital IC's. Use of data book for identification of digital IC's. b) Basic LOGIC GATES and truth table. Boolean algebra. c) Logic families, logic levels, propagation delay. Multiple input gates. d) XOR, XNOR gates and application. e) Simplification of Boolean equations. f) Combinational logic circuits. g) Half adder, full adder, parallel binary adder, half sub tractor, full sub tractor. h) Commercially available adders/sub tractors. i) Comparator, decoders, encoders, multiplexer, de multiplexer. j) Parity generators/checkers. RS Flip - Flop, JK flip-flop, Master- Slave flip flops. k) Types of triggering and applications. D flip-flops.

		l) Counters, ripple, synchronous, up down, scale-n counters. m) Principles of A/D & D/A converter. Commercially available A/D & D/A converters. Applications. n) Shift registers. Types, applications. o) Commercially available shift registers and applications. p) Conversion of serial data into parallel and vice-versa. **PRACTICAL:** a)Identify the specifications of given digital IC's referring to data books. b) Verify the truth table of two input OR, NOR, AND, NAND, NOT gates. c) Verify of truth table of multiple input logic gates. d) Verify the truth table of XOR and XNOR Gates. e) Realization of different gate type using NAND gates. f) verification of Boolean laws. g) Realization of half adder & full adder using NAND gates. Realization half subtractor and full subtractor using NAND gates. h) Verification of truth table of 7483- 4bit adder. i) Verifying encoder/ decoder/ multiplexer/ demultplexer IC truth tables. j) Realization and verification of truth table of RS, JK and MS- JK flip-flop. k) Realization and verification of D- flip flop. l) Realization and verficiation of up & down (sync/async) counter. m) Verification of A/D & D/A converter. n) Realization of shift registers using FF. o) Verification of Right-shift, Left-shift registers. p) Verification of Serial-in-parallel out and parallel in serial out of data.
	Basic Hardware & Computer Parts	**THEORY:** (a) Types of I/O devices and ports on a standard PC for connecting I/O devices. b) Function of keyboard, brief principle, types, interfaces, connectors, cable. c) Function of Mouse, brief principle, types, interfaces, connectors, cable. d) Function of monitor, brief principle, resolution, size, types, interfaces, connectors, cable. e) Function of Speakers and Mic, brief principle, types, interfaces, connectors, cable. f) Function of serial port, parallel port, brief principle of communication through these ports, types of devices that can be connected, interface standards, connectors, cable. g) 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).** a) Memory devices, types, principle of storing. Data organization 4 bit, 8 bit, word. b) Semiconductor memories, RAM, ROM, PROM, EMPROM, EEPROM, Static and dynamic. c) Example of memory chips, pin diagram, pin function of d) Concept of track, sector, cylinder. FD Drive components- read write head, head actuator, spindle motor, sensors, PCB. e) Precaution and care to be taken while dismantling Drives. f) Drive bay, sizes, types of drives that can be fitted. Precautions to be taken while removing drive bay from PC. g) 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. h) Precautions to be taken while fitting drives into bays and bay inside PC cabinet. i) CMOS setting.(restrict to drive settings only). j) Meaning and need for using Scan disk and defrag. k) Basic blocks of SMPS, description of sample circuit. **PRACTICAL:** **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.
- Removing a Power Supply
- Installing a Power Supply
- Removing a Video Card
- Installing a Video Card
- Install Expansion Cards
- 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 | **THEORY:**

Types of software. System software OS, Compiler. Application software like MS office. Functions of an operating system. Disk operating system.

a) Concept of GUI, Modes of starting on different occasions.
 b) Desktop, Icon, selecting, choosing, drag and drop.
 c) My computer, network neighborhood / network places.
d) Recycle bin, briefcase, task bar, start menu, tool bar, and menus.
e)Windows Explorer.
f) Properties of files and folders.
g) Executing application programs.
 h) Properties of connected devices.
i) Applications under windows accessories.
j) Windows Help.
k) Finding files, folders, computers.
l) Control panel. Installed devices and properties. Utilities for recovering data from defective/bad hard disks.
m) Introduction to removable storage devices, Bulk data storage devices-magnetic, optical, magneto optical drives, WORM drives.
n) CD ROM drives- Technology, Types of CD drives, working principle application.
o) Minor repairs and maintenance of CD ROM drives. |

		p) Technology, working principle, capacity, media of DVD ROM drive . q) Important parts and functions of DVD ROM drive. r) Minor repair works on a DVD ROM drive. s) Technology, working principle, capacity, media of CD WRITER and use different modes of writing on a CD. Using of utility for CD writing. t) Minor repair works on a CD WRITER. u) Latest trends in backup devices/media **PRACTICAL:** **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** • 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	**PRACTICAL:** •The danger in not diagnosing problems first •Learn how to test your RAM • Check your hard drive for errors

		DCHM	
Course	**Course Module**		**Module Details**
DCHM	Basic Networking		**THEORY:** • 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 & Connectors – Unshielded twisted-pair (UTP), shielded twisted-pair (STP), Filber Optics 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. **PRACTICAL:** **Components of the Computer Network, Crimping & Punching and Cabling** • 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	**THEORY:** . **Install & configure a Network** • 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. **PRACTICAL:** **Install & configure a Network** • Installing & 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
		THEORY: **IP Addressing & TCP/IP** Protocols, TCP/IP, FTP, Telnet etc., Theory on Setting IP Address(IP4/IP6) & Subnet Mask, Classes of IP Addressing **PRACTICAL:** **IP Addressing & TCP/IP** IP Addressing technique(IP4/IP6) and Subnetting and Supernetting the network.
		THEORY: **Other Network Protocols** 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 **PRACTICAL:** **Other Network Protocols** Working with SMTP, TELNET, FTP, HTTP, SNMP etc. Practice on configuring DHCP.
DCHM	Setting Up	**Sharing Resource & Internet connection**.

	Internet	**THEORY:** • Concept of Internet. Architecture of Internet. DNS Server. Internet Access Techniques, ISPs and examples(Broadband/Dialup/Wifi). • Concept of Social Networking Sites, Video Calling & Conferencing. Concept of VIRUS and its Protection using Anti Virus, UTM and Firewall. **PRACTICAL**: • 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 & Basic Configuration	**THEORY:** • Server concepts, Installation steps, configuration of server. • Concept of Active Directory and DNS. Setting up of DHCP, Routing and remote access. **PRACTICAL:** • Install and configure Windows Server • Configure services like Active Directory, DNS and DHCP. • Configuration of broadband modem and sharing internet connection. • Linux Network Tools to Check / Maintain / Manage Network.
	Network Troubleshooting	**Network Protection and troubleshooting** **THEORY:** Collaborating using wired and wireless networks, Protecting a Network, Network performance study and enhancement. **PRACTICAL:** Setting up basic protection using public keys and MAC address filters. Integrate wired with wireless network. Power over Ethernet(PoE). Troubleshooting wired and wireless network.

CWD		
Course	**Course Module**	**Module Details**
CWD	Internet, Protocols & Browser	**THEORY:** **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. **PRACTICAL:** **Internet Concepts** • Opening websites and browsing. Writing, reading and sending emails. Connecting to Internet. Browsing popular sites and using search engines.
	HTML, DHTML	**THEORY:** **Introduction to HTML** • HTML features and uses, structure of an HTML document, creating HTML document, adding body text and comments. • Using all the features, colours and other effects of HTML. Converting MS Office documents to HTML. • Tables & Lists – Creating Tables and Lists in HTML documents. • Links: Creating links to local range,• other pages, specific part of page, electronic mail. • Images: Including icon and picture• in HTML document. Creation of animated GIF. Sizing the pictures. **Multimedia Objects** • Adding external images, video, and• sound file including device independent (DVI) files. Add marquees of scrolling text. **Frames** • Setting and releasing frames. Using one frame to index another. Creating floating frames, borderless frames and frames with borders. **Style sheets** • Creating style sheets to other HTML element, altering different characteristics and features. • Cascading HTML style sheets **DHTML** • Creating layers using style sheet syntax. Create animation. Theory related to practical **PRACTICAL:** **Introduction to HTML** • Using HTML editor, creating simple HTML documents, containing heading, body text and comments • Creating web pages with all the features and effects. • Converting MS Office documents to HTML. • Creation of web pages containing tables of different formats. • Practice on modification of tables. Creating Lists using Bullets and Numbers. • Using HTML for creating web pages with links to other pages different points of a page and link to tables and list. • Creating webpages containing images, • Animation graphics using GIF animator or some other software. • Inserting Images, Video & Sound effects. Marquees of Scrolling text. • Setting and releasing different types of Frames. • Using HTML to design different types of forms, incorporating different type of boxes, buttons, menus and fields. • Processing the form. • Designing web pages with taught elements along with style elements for different characteristics.

		• Practice cascading style sheets. Creating animation in the web pages using layers.
CWD	Java Script	**THEORY:** • 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 **PRACTICAL:** **Java scripting** Creating scripts for Web for Dynamic websites Validation on Forms
	Dreamweaver	**PRACTICAL:** **Web Publishing using Dreamweaver** • Design Professional Web Layouts, Author and Publish websites on the internet Design Professional Web Layouts, Author and Publish websites on the internet using Dreamweaver
	GIF Animator	**PRACTICAL:** Creation of animated banners, buttons, userpics, GIF images for your website, presentation, e-mail, etc.

CBM

Course	Course Module	Module Details
CBM	Creating Illustrations	Using Adobe Illustrator CS2
	Imaging	**THEORY:** • Computer Graphics :Concept • Interactive Media Design Standards : Concept • Understanding how images are formed, image file formats and their properties **Graphic reproduction** • Tonal value. Tonal gradation. • Continuous tone. Half tone, Moiré pattern, Highlight, Middle Tone, Shadow areas contrast & details **Scanning** • 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 **PRACTICAL:** (A) **Adobe Photoshop** * 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	**Flash** **THEORY:** • Media Design issues, Media selection issues, Selection of Media. • E-learning Standards: Concepts

		SCROM concepts : Concepts **PRACTICAL:** • Adobe Flash :Concept and application • Working with Flash Action Script • Adobe Authorware: Concept & application related media • Understanding the SCROM compliance issues for Elearning • Create interactive animations and applications using Flash • Create Interactive Applications and Elearning modules • Twitter Bootstrap and Zurb foundation :Concept & application
	Authoring	Using Adobe Direct
	Sound Editing	**THEORY:** **Sound forge** • Different Audio file formats – AVI, WAV, WMA, MP3, MP4 • Audio editing tools Audio/ Sound effects **PRACTICAL:** **Sound forge** • Understanding and working Sound editing Software. • Recording of Audio, importing of Audio files. Editing of Audio and inserting effects.

DMA		
Course	**Course Module**	**Module Details**
DMA	Video Compositing & Editing	**Using Adobe aftereffects** **THEORY:** **Adobe Premier** • Different formats of Video files • Video Editing tools • Time line Insertion of graphics, animation clippings, Photos and video clippings • Video Transition effects Voice over **PRACTICAL:** **Adobe Premier** • Understanding the working of video editing software. Capturing and importing of video, Graphics. Editing of video and inserting effects
	3D Animation	**THEORY:** **Print Design Basics** • Fundamental Principal of Design. Color Theory. • Layout Composition. • Creative use of Colors. • Drawing Anatomically correct human figures. • Learning proper body proportion. **PRACTICAL:** • Concept Art • BG Design • Prop Design • Character Design **Using 3D Max & Maya**

DBCO		
Course	**Course Module**	**Module Details**
DBCO	English Learning & Communication	**THEORY:** • Detailed knowledge and usage of past, present & future continuous, perfect simple, perfect continuous tenses, affixes, active to passive, comparative & superlative adjectives and adverbs • Phrasal and modal verbs, singular and plural nouns, direct to indirect speech Recognize and produce, compound and complex sentences, quantifiers. Common grammatical errors. **Basics of English** • Introduction to basics of English • Sentence Construction • Pronunciation **Basics Math and Problem Solving** • Basic Mental Arithmetic practice • Basics of Problem Solving for Quantitative and Verbal Tests **Personal Grooming** • Importance and Aspects of Personal Grooming • Basic Relaxation and Stress Techniques **Corporate Etiquette** **Current Affairs** • Politics, Society, Sports, Business World, World Economy and Patterns **PRACTICAL:** **Practice of English Language 1:** • continuous, perfect simple, perfect continuous tenses, affixes, active to passive, comparative & superlative adjectives and adverbs • Phrasal and modal verbs, singular and plural nouns, direct to indirect speech Recognize and produce, compound and complex sentences, quantifiers. • Basics of English 2 Practise on Pronunciation and sentence construction • Practise on understanding and solving basic problems • Tips to ensure you look and feel great Breathing and Stretch Exercises • Demonstration on corporate etiquette in simulated environment • Visit to a corporate office for better understanding Practise on various aspects of current affairs
		1.MODULE I a. Basic English Grammar with Written Test b. Reading, Writing, Dictation, Understanding c. Vocabulary d. Introduction To Group Discussion/ JAM Session/Extempore e. Corporate Communication f. Listening Skills **2.MODULE II** a. Personality Development b .Body Language/Dress Code c. Resume Writing d. Advanced Group Discussion / JAM Session/ Extempore e. SWOT Analysis f. Time & Stress Management g. Mock Interview **3.MODULE III** a. Typing Skill b. Call Centre Software **4.MODULE IV**

		a. Call Centre Training
		b. Introduction To BPO & Call Centre Industry
		c. Classification, Functioning, Work Environment
		d. Customer Relationship Management(Crm)
		e. Technology Used in eCRM
		f. Selling/Delivering Customer Service Over Phone
		g .Probing (Handling complain & tricky situation)
		h. The Agent- Eligibility, Recruitment, Training
		i. Voice Modulation & Accent Training
		j. Mouth Exercise
		k. The Vowel Sound, the plosive sounds, the TII sound & pronunciation
		l. Soft skill
		m. Cultural Awareness
		n. Mock Calling
		o. Mock Interview.

CCAD		
Course	Course Module	Module Details
CCAD	Fundamental	**THEORY:** • 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. **PRACTICAL:** • Identification of Different parts of a Computer System. • Turning a computer system on and off
	Windows OS	**PRACTICAL:** • Identifying different Desktop Icons. My Computer, My Documents • Changing Desktop Backgrounds, Mouse Pointer, Screen Saver Notepad , WordPad, MS Paint
	MS Word	**THEORY:** • Introduction to MS Office• • Word Processing Software **PRACTICAL:** • 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

	AUTOCAD	**THEORY & PRACTICAL**
		
		• **Basic CAD**
		  Draw, Modify, Edit, Insert, View, Style, Dimension, Format, Tools
		• **Different Modes**
		  Snap, Grid, Ortho, Polar, Osnap, Optrack, Dynamic Input
		• **Different Settings**
		  Layer, Units, Dimension Style, Table Style, Text Style
		• **Advance CAD**
		  MV setup, 2d Isometric Drawing, 3d Drawing

	Internet & Email	**THEORY:** **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. **PRACTICAL:** **Internet Concepts** • Opening websites and browsing. Writing, reading and sending emails. Connecting to Internet. • Browsing popular sites and using search engines.