STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

TNCF 2017 - DRAFT SYLLABUS

Subject : Computer Technology (Vocational and Science)   **Class :** XI

TOPIC	CONTENT
UNIT – I FUNDAMENTALS OF COMPUTERS	**Introduction to Computers** Introduction to Computers-Generations of Computers-Components of Computers-Concept of Booting *Case Study: Prepare a comparative study of various computers of past and present with respect to speed, memory, size, power consumption and other features* **Computer Organization** Introduction-Basics of Microprocessors-Types of Microprocessors-Reduced Instruction Set Computer-Complex Instruction Set Computer-Memory -Primary Memory-Random Access Memory-Types of RAM-Read Only Memory (ROM)-Cache memory-Secondary Storage Devices--Ports **Operating Systems** Operating Systems-Introduction -Need for an OS-Types of OS-Prominent OS-Functions of an OS **Number Systems** Introduction-Data Representations-Decimal

	Number System-Binary Number System-Octal Number System-Hexa-Decimal System-Number Conversions-Binary representation of Integers-Representing Characters in Memory **Working with Windows** Introduction to Operating system-Introduction to Windows operating system-The Desktop • The Window-Application Window-Document Window-The Icons-Windows directory structure • Explore the Computer-Shutting down the computer *Case Study: How to create and manage folders*
Unit - II Word Processor	*(1)* **(Basics)Familiarization with MS Word-Text Formatting-Paragraph Formatting-Searching for text case study** *Create a leave letter to you class teacher (in Tamil or English)* *(2)* *Create a Report about Recent Economic Growth (in Tamil or English)* **Word Processor – II (Inserting Objects, Tables and Page Formatting Inserting Objects** **Working with tables** **Working with Page Formatting** **Case Study: (1) Create an invitation using images and WordArt (in Tamil or English)** **(2) Create a text document with images and Tables** **Word Processor – III**

	(Additional Tools, Mail Merge and Printing Additional Tools **Mail Merge** **Printing the Documents** **Case Study: (1) Create Festival greeting or invitation and use mail merge to send it to your friends.**

Unit - III
 	
Spreadsheet
	Spreadsheet – I
	
	   (Basics) Features of MS-Excel
	
	   Contents of the MS-Excel Window
	
	Working with Data
	
	Case Study: (1) Create a Mark statement of your class with Total marks and apply various formatting features.
	
	Spreadsheet – II
	
	(Functions and Chart Managing Worksheets)
	
	   .
	
	Functions
	
	Charts in Excel
	
	Case Study: Create a spreadsheet file to store sales data of a particular product and present as

	Chart. **Spreadsheet – III** **(Data Tools and Printing)Data Tools** **Additional Tools in Excel** **Printing Excel Sheets** *Case Study:* *Create a worksheet to calculate Net salary to 25 employees and ….* (1) *Arrange the employees based on their gross salary / seniority* (2) *Filter employees using any criteria.* (3) *Prepare a chart showing higher to lower salaried employees names* (4) *Print the file as pdf*
Unit - IV Presentation	**Presentation – I** **(Introduction)Starting power point** **Power Point Window Description** **The MS-PowerPoint Views** **Creating a new presentation** **Presentation – II** **(Inserting features)**

| Unit - V
Internet and E-Mail | **Computer Network** Evolution of Networking: -Network Topologies: --Types of Network: -Wired Technologies: -Wireless Technologies: -Network devices: --Identifying computers and users over a network: -Wireless/Mobile Communication: -Internet Applications: --Network Security Concepts:

Internet and e-Mail Evolution of Internet-Hardware and Software requirements for Internet connection-Services -available on the Internet-The role of WWW as a service on the Internet-Working of Search Engine-Structure and Working of e-mail-Different types of social media-Threats to network security-Preventing Network attacks-Guidelines for using Internet and Computer Ethics

Tamil in Computers Introduction-Tamil in Internet -Tamil Typing and Interface software -TSCII (Tamil Script Code for Information Interchange) -Indian Script Code for Information Interchange (ISCII)--UNICODE -Tamil in Microsoft Windows & Linux -Tamil Virtual Academy -Project Madurai -Tamil Wikipedia |

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TOPIC	CONTENT
UNIT – I Desktop Publishing (Page Maker)	Introduction to PageMaker Introduction to Page Maker-Page Maker Window-Views (Fixed views and Zooming)-Moving and Resizing Objects-Adding and Deleting Pages-Hand Tool-Guides and Rules Working with Tools Drawing Lines, Rectangles, Ovals, Polygons-Outline and Stroke, Color Fills-Creating Frames and Blocks-Working with Control Pallets Working with Text, Paragraph and Graphics Selecting text, Managing Fonts-Paragraph Alignment, Indents, Spacing and Tabs-Placing, Editing and Linking Graphics-Crating Keyline Manipulating with Control Palette Positioning and Using Magic scale-Rotating, Skewing and Mirroring-Ordering, Aligning, Distributing and Grouping objects-Image Control and Bitmap effects-Non printing elements Story Editor, Long Docs, Layers and Tables Story Editor-Long Documents – Doc Setup, Master page-Layers, sorting pages and Managing Links-Creating, Formatting and Exporting Tables Printing-Printing-Exporting-Building Booklet-Case study:-Prepare a handout about your school using all the features you learned.--Group Activity: Form a

	group with 10 students; prepare a monthly Student magazine in Tamil or English.
Unit - II Vector Graphics with Corel DRAW	Introduction to Corel DRAW Introduction to Corel DRAW—Tools-Menus-Drawing shapes and brushstrokes.-Formatting lines and outlines-Applying brushstrokes Text Adding and Manipulating Text-Formatting Text-Working with text in Different languages-Managing Fonts-Using Writing tools Templates and Styles Working with templates-Working with Styles and Style sets-Working with Color styles Page Layouts and Printing Working with Pages and Layout tools-Printing basics-Preparing files for service providers -Case Study:-Create a Corel document about your school
Unit - III Multimedia and Introduction to AutoCAD	Introduction to Multimedia Picture/Graphics, Audio, Video; Digital Images and Digital Image representation, animation, morphing;-Image Formats: --Applications: -Image Scanning with the help of scanner: Introduction to AutoCAD Introduction of AutoCAD-Application of AutoCAD-Advantages of AutoCAD-AutoCAD getting started-Important features of AutoCAD-AutoCAD Commands-Command Entry-File management in AutoCAD-Draw Comments
Unit – IV Multimedia Authoring Tool	Getting Started with GIMP Image Editing with different types of Editors-Uses of GIMP-Role of Layers-Various Selection tools-Insert text in an image and Export-

	Transform Tools- Advanced Tools Path tools to create patterns, selections and aligning text-Colours and Colour – schemes-Tools to modify an image-Filters to alter an image-Logos tool to create animations and export to GIF--Case Study:-*Perform cloning on an image*
Unit - V Webpage Development	Introduction to Webpage Development using HTML Introduction-Browsers-Basic Concepts-Structural Tags of HTML-Inserting Breaks-Creating Paragraphs--Formatting Tags of HTML-Creating Lists-Creating Links-Inserting Images-Adding Music and Movie-Creating Tables-Creating Frames-Creating Forms-Document Object Model: --WEB Hosting Cascading Style Sheets Introduction to Cascading Style Sheet (CSS)-Font Properties-Text Properties-Background Properties-Margin Properties-Padding Properties-Border Properties-Positioning-Additional Features