

CURRICULUM
OF
SIX MONTHS
CERTIFICATE COURSE
IN
COMPUTER APPLICATION

UNDER DEVELOPMENT

INSTITUTE OF RESEARCH, DEVELOPMENT & TRAINING

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Main Features of Curriculum

- 1. Title of the course : Computer Application**
- 2. Duration of Course : Six Months**
- 3. Type of the course : Full time**
- 4. Admission Qualification : Knowledge of English**

CURRICULUM SIX MONTHS CERTIFICATE COURSE OF COMPUTER APPLICATION

Module I 2 Weeks

1. History of Computer & Fundamentals
2. Hardware & Software Concepts
3. Concept of Operating System

Module II 6 Weeks

1. Office Automation & Programming Practice
2. Concept of Internet & Communication

Module III 12 Weeks

1. Tally 9.0
2. D.T.P
3. WEB Designing

**STUDY & EVALUATION SCHEME
FOR
CERTIFICATE COURSE
Computer Application
(Effective from**)

S.No	SUBJECT	PERIOD PER DAY		EXAM SCHEME	
		THEORY	PRAC	PRAC EXAM	TOTAL MARKS
				DUR	
	MODULE I 2 WEEKS				
1.	HISTORY OF COMPUTER & FUNDAMENTALS	01	-	-	-
2.	HARDWARE & SOFTWARE CONCEPTS	01	01	01	25
3.	CONCEPT OF OPERATING SYSTEM	01	02	03	50
	MODULE II 6 WEEKS				
1.	OFFICE AUTOMATION & PROGRAMMING PRACTICE	01	02	03	50
2.	CONCEPT OF INTERNET & COMMUNICATION	01	02	03	50
	MODULE III 12 WEEKS				
1.	TALLY 9.0	01	01	03	50
2.	D.T.P	01	01	03	50
3.	WEB DESIGNING	01	01	03	50
	TOTAL 20 WEEKS				325

- NOTE: (1) Each period will be of 50 minutes duration.
(2) Each session will be of 24 weeks.
(3) Effective teaching will be atleast 20 weeks.
(4) Remaining periods will be utilised for revision etc.
(5) Emphasis should be on Practical Aspect.
(6) Sufficient practice session of English & Hindi typing should be provided in
Module I & Module II.

Module I

Unit –I History of Computer & Fundamental

1. **History of Computer.**
 - Abacus of NIAC, Computer Generation, Languages, Software and applications. Computer in India.
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2. **Computer an Introduction.**
 - * Function of computer: Input, processing and output, function of ALU, control, storage input and output devices.
 - Application of Computer: viz. Railway reservation, electronics/ telephone etc.
3. **Types of computers & classification.**
 - Classification of computer : Analog , Digital and Hybrid, Types of computer: Home, micro, mini, main from, super and laptop , pocket computers.
 - Centralized decentralized distributed systems.
4. **Characteristics of computer.**
 - The character: High speed, Accuracy, Storage, Automation, Diligence, Versatility, Cost effective, No feeling.
5. **Number System & Function.**
 - Binary, binary addition and subtraction, decimal, octal, hexadecimal, Bit, byte, characters, field, record and fill.
 - BCD, EBCDIC, ASCH Bit, byte, characters, field, record and fill etc.

Unit- II Hardware and Software Concepts.

1. **Input Devices.**
 - Input device: On line data input device and their importance, dumb terminal , intelligent terminal, voice recognition. Touch tone terminal , mouse.
 - Off Line data input: Key to disk system. Key to tape system, Key to punched card.
 - Source data input: point to scale terminal , Leaser beam scanners. Optical mark readers (OMR), optical character (OCR) and magnetic ink character readers (MICR)

2. **Output Devices.**

- Hard copy device : Dot matrix printers, Ink jet printers, laser printers, plotter output.
- Soft copy devices: VDU (Monochrome & colors) , LCD (liquid crystal display), audio response unit, micro film.

3. **CPU Architecture & Block diagram of computer.**

- CPU architecture & ALU : Instruction , fetch and execution cycles, control unit micro- programming concept, speed mismatch between CPU and memory.

4. **Memory Devices.**

- Memory devices: RAM, ROM, PROM, EPROM, EEPROM, ECCRAM, EDO RAM, and their specification. Memory, storage locations, use of memory addressing in programming.
- Secondary memory devices: floppy disk, hard disk (removable/fixed), concept of cylinders, tracks and sectors, advantage and limitations of secondary storage, access time, access methods (Sequential, Direct).

5. **Introduction of Software.**

- Software concepts: application & systems software, Assembler, compiler, interpreter, multi user, multi tasking, multi programming operating system.
- Virus protection diagnostic tools.

Unit- III **Concept of Operating System.**

1. **Introduction & Configurations.**

- Definition & Evolution of Operating System : Serial Processing, Batch Processing Multi Programming.
- Main Function of operating: Process Management, Memory Management, File Management. Security management and command interpreting.

2. **Types of operating systems & classification**

- Types of operating system: User based & GUI based, Single user, multi user, Batch operating systems, Multi programming operating systems, Network operating systems and Distributed operating system.

3. **Features of Window XP.**

- Definition & Features of windows XP: component of the desktop: Icons, Taskbar, Background, Screen Saver, Logging on & Turn off windows xp, part of windows.
- Arrange the icons on the desktop, Move, minimize, maximize, resize and close a window, using menu bars and toolbars.

4. **Configuration of Windows XP environmental**

- Identify the purpose of the start menu: Add a printer and add or remove programs. Help and support, search, Run, Control panel.
- The start menu command: my computer, my document, my recent document, my picture, my music, game, my network place, Internet explorer, E- mail.

5. **First Aid maintenance.**

- Measuring, Main supply, earth voltage & checking ear thing.
- Precautionary measures in handling/ operating: VCD, CD, HDD, FDD, DVD, Scanner, Modem, Keyboard, Mouse, Hub, Monitor, UPS, CVT.
- Printers: Dot Matrix, Inkjet, Laser- Feeding paper, Installing the cartridge, refilling the cartridge.

6. **Basic DOS commands.**

- Introduction of DOS (Disk operating systems) – Files, Directories, Sub directory, Root directory, Current Directory, Drives, Using extensions, File and Directory naming conventions.
- DOS command : External command, Internal command.

MODULE II

Unit – I Office Automation Package

1. Introduction of MS office

- Definition & Features of the MS office: Microsoft 2003 & 2007 word. MS Word, MS excel, MS power point, MS access and MS outlook.
- Working with note pad, word pad and paint.

2. Basics of Word Processing.

- Creating a simple document in word : opening document and creating documents, Saving & quite document, text selection, editing document.
- Using interface: Menus, Toolbars, printing , typing and revising text.
- Formatting paragraph: Creating right and left alignment , tab stops, line spacing , paragraph, spacing , borders and shading.
- Document template, page setup, table and sorting & numbering cells, special tasks with tables.
- Mail merge: Data sources 7 main document , starting & editing the main document merge printing envelopes & labels.

3. Spreadsheet Package .

- Working with worksheet: Data entry in cells, Entry in numbers, text and formula, moving data in a work sheet, selecting data range, saving and quitting, cell reference.
- Formatting and calculation: Calculation and auto fill, efficient data display with data formatting, number formatting, working with ranges, working with printing.
- Working with graphics and charts: Adding/ Formatting text data with auto format, creating embedded chart using chart wizard, changing chart wizard, adding title, legend and gridline.
- Database management: finding records with data form, adding/ deleting records, filtering records in a work sheet.

4. Graphic and Presentation package

- Introduction of Graphics : Presentation, Analytical, Design
- The power interface: Title bar, menu bar, toolbars, status bar, task pane.
- Component of presentation: Slides, Outline, speaker notes, handout.
- Crate a new presentation: save a presentation, navigate and edit slides, apply design templates to slides, apply the background colors to slides, open and exiting presentation.

- View a presentation in different mode: Inset pictures into presentation, Insert word art and auto shapes, add animation effects to slides, apply transition effects to slides, Running a slide show.
5. **Programming practice and Technique.**
- Data capture and validation , Data entry package , input from design, data editing, key to disk systems, validation & control.
 - Laboratory exercises on data entry, tele typewriter , video display terminal dot matrix printer.
 - Exercise on data collection, data validation and data verification
 - Exercise on transferring data from one medium to another/ including back up restore.

Unit –II Concept of Internet & Communication

1. **Introduction of Internet.**
 - History of Internet, Internet connection setup & sharing, web with internet explorer, internet explorer file management , web address, search methods.
2. **Concept of Networking.**
 - Concept of Networking: LAN, WAN, MAN, Data communication, component of communication, Data representation.
3. **Protocols and Standard**
 - Definition of protocols & stander: TCP/IP, FTP, ISP, NSP, standard creation committees.
4. **e-Mail Accounts**
 - Introduction of e-Mail, understand and describe e-mail, sing up for a mail account, read, send, delete e-mail massage in the Inbox.
5. **Web Page with Front page**
 - Create a web page, add to text a web page. Modify text in a web page. Insert graphics into web page, save and preview a web page, publish a site on the web.
 - The terms of Internet: WWW, Web, Web site, Web page, Hyperlink, Windows, Toolbar, Menu Bar.

MODULE III

Unit -1

Tally 9.0

1.Basics of Accounting,

- Tally Fundamentals (Learning how to use of Tally)
- Processing Transactions in Tally.

2.Accounting on Computers

- Report Generation (Creating statements like Invoice, Bill, Profit & Loss account etc.).

3.Features of Tally (Company creation etc.)

- Business Organizations (Different areas like Schools, Colleges, Shops, Factory etc)
- Double entry system of bookkeeping
- Recording Transactions.

4.Budgeting Systems,

- Scenario management and Variance Analysis, Use Tally for Costing, Ratio Analysis.

5.Costing Systems

- Understanding Ratios,Analysis of financial statements Cash Flow Statement and Funds Flow Statement Analyzing and Managing Inventory.

6.Inventory Basics,

- POS Invoicing, TDS, TCS, FBT, VAT & Service Tax Processing in Tally.
- Interface in Different Languages,Processing Payroll Functions in Tally
- Administration and Other Utilities

Unit -2

Desk Top Publishing

PageMaker

- Working with tool bar, Setting defaults, Opening, saving and closing publications.
- Inserting and removing pages. Flowing text, resizing the object, Adjusting graphics or text objects
- Select multiple elements. Selecting elements behind the others.
- Mask and group, unmask and ungroup.

- Constrain move vertically/horizontally. Paste items, editing objects, rotating text box.
- Layout window, viewing pages, changing previous and next pages, zooming and hyperlinks Font style, size, case. Subscript and superscript. Inserting Special characters, bullets, page numbering .Spacing of character, line, word and paragraph.
- Breaking and non breaking. Text editing – selecting word, paragraph and a range of text.
- Indenting/Tabs, Find and change dialogue box, Text recomposition
- Compress paint, JPG and GIF files, Using Palletes control, colour palletes, styles palet and master pages pallet. Removing master page objects from pages, control pallets.
- Making tables, editing data in tables.
- Filing, stroking, frames, arranging, text
- Wrapping, grouping and ungrouping, locking and unlocking, mask/unmask image, polygon. setting, rounded corners.

CorelDraw

- 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.

Photo Shop

Photo editing /inserting starting with

- Setting Up
- The Interface
- Managing Palettes
- Working With Photoshop Tools
- Working With Layers

Unit -3

Web designing

1. Introduction to Web

- Connecting to Internet. Browsing popular sites and using search engines.

2. Introduction to HTML

- HTML features and uses, structure of an HTML document,
- 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 web pages containing images,

3.Multimedia Objects:

- Animation graphics using GIF animator or some other software.
- Inserting Images, Video & Soundeffects. Marquees of Scrolling text.

4.Frames –

- Setting and releasing frames. Using one frame to index another. Creating floating frames, borderless frames and frames with borders.

5.Forms –

- Creating basic forms.
- Using HTML to design different types of forms, incorporating different type of boxes, buttons, menus and fields. Adding text box, check box,radio buttons, pull-down menus, single-line text fieldand password field.. Processing the form.

6.Style sheets –

- Creating style sheets to other HTML element, altering different characteristics and features.Cascading HTML style sheets.

7. DHTML –

- Creating layers using style sheet syntax. Create animation.
- Designing web pages with taugt elements along with style elements for different characteristics.
- Practice cascading style sheets.
- Creating animation in the web pages using layers.
- Using Apache Software
- Links - Creating links to local range, other pages, specific part of page, electronic mail.

Tools & Equipment:

Hardware:

- Server Computer (Latest configuration)
- Multimedia Nodes (Pre-loaded Windows 2000 or latest)
- Inkjet/Laser Printer
- UPS

Software:

- Windows 2000
- Microsoft Office 2003 Professional or latest
- Anti Virus Software (TVD/ Norton/Any popular brand)
- 1 Windows 2000 Server / Linux Server or latest
- Tally 9 Single / Multi User Package or latest
- PageMaker Latest Version
- Adobe Photoshop latest version
- Corel Draw
- Netscape Navigator 4.0 or latest
- GIF Animator & Editor
- Adobe Photoshop
- HTML Editor
- Internet Connection

Kindly mail your suggestions/feedback for improvement/development of the curriculum to:-

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