

SYLLABUS FOR 100 HRS. INFORMATION TECHNOLOGY TRAINING PROGRAMME

SL. NO.	TOPIC	DURATION
1.	Computer Fundamentals	1 hrs.
2.	Operating Systems	6 hrs.
3.	MS-Word	6 hrs.
4.	MS-Excel	15 hrs.
5.	MS-PowerPoint	5 hrs.
6.	Data Bases	15 hrs.
7.	MS-Office utilities	3 hrs.
8.	Accounting package	20 hrs.
9.	Computer Aided Audit Techniques	12 hrs.
10.	WEB TECHNOLOGY & SYSTEM SECURITY AND MAINTENANCE	10 hrs.
11.	INTRODUCTION TO VISUAL BASIC	5 hrs.
12.	DIGITAL SIGNATURE AND VERIFICATION OF ELECTRONIC RECORD	2 hours
	Total	100 hrs.

STRUCTURE OF EXAMINATION :

Online Examination

60 Marks

Project Report to be evaluated by the BOS

20 Marks

Module tests

20 Marks

Pass Marks

60 Marks

SYLLABUS

Total duration: 100 hours

COMPUTER FUNDAMENTALS

Duration: 1 hour

A. Introduction to Computer

(Target teaching time (TTT) : 1 Hour)

- Introduction to Computers
- Characteristics of Computers
- The Computer System
 - Categories of Computers (Micros to Super Computers)
 - Parts of Computers: CPU, BUS, I/O CO Processors, Ports(serial and parallel), Expansion slots, Add on Cards, On board Chips, LAN cards, Multi media cards , Cache Memory, Buffers, Controllers and drivers
- I/O Devices

(Demonstration of the Computer System)

OPERATING SYSTEMS

Duration : 6 hours

A. Introduction to Operating Systems

(TTT : 1 hour)

B. An overview of various operating systems

(TTT : 2 hours)

(Unix / Linux, DOS, Windows)

C. Features of latest Windows Operating Systems

(TTT : 3 hours)

Introduction to Word Processor

Duration : 6 hours

A. Introduction to MS-Word 2000

(TTT : 2 hours)

- Getting started with MS-Word
- Document Creation – How to create document.
- Word Document Manipulation
- Mail Merge
- Printing a Word Document

B. Tables handling

(TTT : 1 hour)

- Formatting the Tables
- Inserting, filling and formatting a table
- Designing complex Tables

C. Finding, Replacing and Proofing Text

(TTT : 1 hour)

- Finding and Replacing Text

Editing and Proofing Text

- Spell check and correction
- Grammar Check and correction
- Image Handling

D. Creating Macros

(TTT : 2 hours)

Sending E-mail from Word

Import / Export of files

Converting Word Document to Web Documentt, PDF files
Hyperlinks and OLE
Security features in MS-Word

- Protection of Documents
- Password for Documents
- Checking for viruses in macros

Introduction to Electronic Spread Sheets

Duration: 15 hours

A. Introduction to MS-Excel 200

(TTT : 1 hour)

- Applications of Electronic Spreadsheets
- Features of MS-Excel
- Starting MS-Excel
- What is a workbook?
- Using sheets in a Workbook
- Entering Data
- Entering Series
- Editing Data
- Clearing Cells
- Saving a Workbook
- Closing a Workbook
- Quitting MS-Excel

B. Cell Referencing, Ranges and Functions

(TTT : 3 hours)

- Cell Referencing
- Ranges
- Range Names
- Formulae
- Functions: Mathematical, Statistical
Financial Functions such as NPV (Net present value), Future value, IRR (Internal Rate of Return),
EMI (Equated Monthly Instalments, Compounding Yearly, periodic and monthly)
- Auto Sum
- Auto Calculate
- Using Names in a Formula
- Formula Error Messages
- Formula Editing
- Copying Formulae

C. Formatting Worksheets and Creating Charts

(TTT : 2 hours)

- Working with Worksheets
- Restructuring Worksheets
- Formatting Data
- Entering Data Quickly
- Creating Charts
- Graphical presentation Such as Lines, Bars, Stacked Bars, Pie

D. Data Forms and Printing

(TTT : 3 hours)

- Database
- Data Form
- Sorting Data

- Filtering
- Creating Subtotals
- Pivot Table
- Printing in Excel

E. Creating Macros

(TTT : 3 hours)

Import/export of data for MIS

Opening non-Excel files in Excel

Using passwords/protecting worksheets

Spreadsheet Applications

F. Data analysis through Excel

(TTT: 3 Hours)

Introduction to Presentation Software

Duration: 5 hours

A. Introduction to MS-Power Point 2000

(TTT : 1 hour)

- Use of Wizards and Templates

Preparing Presentations

- Slides
- Handouts
- Speaker's Notes
- Outlines
- Media Clips
- Charts
- Graphs

B. Starting MS-Power Point

(TTT : 1 hour)

- The MS-Power Point Window
- The MS-Power Point Views
- Presentations and Slides
- Creating a New Presentation
- Creating a new Slide
- Changing the layout for a Slide
- Deleting a Slide
- Running a Slide Show
- Saving a Presentation

C. Working with Slides, Slide Show and Printing Presentation

(TTT : 3 hours)

- Opening a Presentation
- Changing the Order of the Slides
- Editing the Slide Master
- Changing the Color Schemes
- Changing the Background
- Adding text
- Adding Clip Art /scanned objects
- Working with word art
- Drawing Objects
- Working with Slide Show
- Setting up a slide show
- Controlling the Slide Show
- Adding the Transitions to the Slide Show

- Special effects in detail
- Setting Slide timings
- Printing a Presentation
- Pack and Go
- Creating and using Standard Templates

DATA BASES

Duration: 15 hours

A. Data base Basics

(TTT : 2 hours)

Types of Databases: List, Hierarchical, Network, Relational (RDBMS)

DDL (Data Definition Language)

DML (Data Manipulation Language)

DA (Data Administration)

SQL (Structured Query Language)

B. Introduction to Data Base Management System(DBMS)

(TTT : 2 hours)

Introduction to MS Access

- What is MS-Access?
- What are databases used for?
- Component of databases
- Opening file in Access
- Managing databases from the Database/ Access wizard
- Navigating in Access
- Navigating with the databases/Access wizard
- Navigating with switchboard -wizard
- Entering data in a database
- Entering data by hand
- Entering data using a form
- Importing information into a database
- Linking a table from another database
- Exporting Information from a database
- Saving Information in a database
- Closing a database and Existing Access

C. Building and Customizing a Database

(TTT : 2 hours)

- Building databases using the Access
- Building a database by self
- Working with tables
- Building tables with the table
- Renaming the table
- Working with forms
- What is a form?
- Creating a form with the Form Wizard
- Working with the form Wizard
- Working with the form
- Modifying a form

- D. Programming (TTT : 5 hours)
 Structured Query Language(SQL)
- Creating Macros
 - Saving & Executing a Macro
 - Running a Macro
- E. Working with Queries and Reports (TTT : 3 hours)
- Working with queries
- Creating a Query
 - Modifying a Query
- Working with reports
- Creating a report with the report wizard
 - Creating a report with Auto report
 - Opening a report
 - Applying an auto format to the report
 - Report Sequence, Data source
 - Page Size, Margins (Left, Top, Right, Bottom)
 - Report Headers
 - Page Headers, Numbers, Reporting date, For the period details, Page Footers
 - Columns (Column Source, Title, Formatting numeric, character, date, amount (DR/CR), Totaling)
 - Group Suppression of repeated lines
 - Inter column space
 - Groups (Group Bands, Grouping Fields)
 - Detailed Reports, Summary Reports
 - Report output controls (Pages, control totals, summary)
 - Printing of reports (including labels)
- F. Importing and linking data (TTT : 1 hour)
- Compacting a database
- Backing up a Database

Other Utilities and Office Automation Tools	Duration : 3 Hours
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- A. Scheduler, Calendar, Microsoft Binder (TTT : 1 hour)
- B. Outlook 2000 (TTT : 2 hours)
- Configuring Outlook for your email.
 - Sending, receiving and managing the email , mail polling, mail merge to a database file.
 - Sending and viewing attachments.
 - Acting on messages
 - Recalling, printing, and moving messages
 - Searching for, and subscribing to, mailing lists.
 - Using Outlook to subscribe to, and viewing Newsgroups

Accounting Packages	Duration : 20 hours
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- A. Basic Concepts relating to Financial Accounting (TTT : 3 hours)
- Chart of Accounts, Concept of Financial Year
 - The General Ledger Master (Entering Opening Balances)
 - Grouping of GL Accounts
 - The Sub Ledger Master (Entering Party Accounts Debtors and Creditors)
 - Types of Sub ledger (Open type and Brought Forward type)

- Types of Transactions [Main Cash receipts and payments, Petty Cash receipts and payments, Bank deposits, cheques and bank charges, Journal vouchers (Debits and Credits)]

B. Introduction to any Window based Accounting Package (TTT : 3 hours)

Installing & Starting the package

Setting up a new Company

Setting up account heads

Voucher Entry

Viewing & editing data

C. Generating Books of Accounts (TTT : 4 hours)

- Daybooks (Cash, Bank, Columnar Analysis type, Journals)
- Postings
- Printing of Checklists, Reports such Subsidiary Ledgers, General Ledgers
- Finalisation
- Financial Statements (Trial Balance, Profit and Loss / Balance Sheet)
- Closing and reopening of Books for Subsequent Financial Years after audit.

D. Financial Analysis Tools (TTT : 6hours)

- Cash Flow, Funds Flow Statements, Ratio Analysis, Budget vs. Actual Expenditures, Sales Analysis, Trend Analysis, Consolidation, security review
- Backup, restore, audit trail / transaction trail
- Accessing database, Querying, exporting data from MS_EXCEL/MS_ACCESS for financial analysis

E. Weaknesses to look for in Accounting Packages (TTT : 2 hours)

- Password controls not strong
- Lack of the following Audit Trails
 - Authorisation Signature
 - Log of data modification
 - Log of deleted data
 - Log of user accesses of files
 - Before and after images of altered data
 - Missing and duplicate serial numbers
 - Warning on duplicate entries
- Unauthorised modification of Heads of account
- Non-Provision for freezing entered data
- Back up provisions inadequate
- Limited number crunching capacity
- Easy exit to operating system
- Usage of unencrypted files
- Inadequate controls on automatic entries
- Inflexibility of document formats
- Inability to add / rename fields

Introduction to Other Accounting Packages (TTT : 2 hours)

Computer Aided Audit Techniques	Duration : 12 hours
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A. Controls and Auditing in Computer Environment (TTT : 2 hours)

- Frequently used checks such as
 - Field Checks numeric, Alpha, Lower Limit, Upper Limit, Range, Slab, Valid

- Codes, Sign test, check digits
 - Group of Fields Tests
 - Record Level Tests,
 - Group of Records Tests
 - Table Level Tests and Checks such as control totals, hash totals
 - Inter table tests like Master present, Master missing
 - System and inter system tests
 - Reasonableness checks (Materiality)
 - B. Audit Techniques (TTT : 3 hours)
 - Review of Systems
 - Test data Checking (Simple, compound and complex errors)
 - Test data pack
 - Test data generation
 - Parallel processing
 - Parallel programming
 - Source Code Review
 - Examination of Audit trail
 - Log file review
 - Random sampling Techniques
 - Using Generalized Audit Software
 - Using Audit Routines as part of regular software
 - Using separate audit programs
 - Audit systems
 - Audit of Systems Development process (including system documentation)
 - Audit of SDLC (Systems Development Life Cycle)
 - Pre / Concurrent / Post Audit of Transactions
 - C. Cyber Audit using remote logins (TTT : 3 hours)
 - Audit by simulation of errors, frauds
 - Audit of Data Security such as online, offline, offsite backups
 - Audit of System Security such as logins, access rights
 - System Performance Audit
 - D. Data Extraction and Analysis Tools using SQL commands (TTT : 2 hours)
 - E. Different Tools available in RDBMS / ERP useful in Audit (TT : 2 hours)
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| Web Technology & System Security and Maintenance Duration : | 10 hours e |
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- A. Web Technology (TTT : 2 hours)
 - Internet
 - Mailing Services
 - Internet Addressing
 - Browser
 - www
 - Placements
 - B. Telnet, Internet Telephony (TTT : 1 hours)
 - C. Reference sites (TTT : 1 hour)
 - D. Internet security& System security (TTT : 2 hour)
 - System preventive maintenance(virus scan, defragmentation, junk file deletion, tracking record deletion)
 - System security(password, Network setting)

- G. E-Commerce (TTT: 2 hours)
- Web Commerce
 - Advertisement
 - Purchase Online
 - Payment Gateways
- H. Electronic Data Interchange (EDI) (TTT: 2 hours)
- What is EDI?
 - Components of EDI

INTRODUCTION TO VISUAL BASIC	(5 HOURS)
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DIGITAL SIGNATURE AND VERIFICATION OF ELECTRONIC RECORD	(2 Hours)
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