

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.	E-Filing	5 hrs.
12.	Digital Signatures and Verification of Electronic Records	2 hours
	Total	100 hrs.

STRUCTURE OF EXAMINATION:

Online Examination

60 Marks

Project Report to be evaluated by the BOS

20Marks

Module tests

20 Marks

Passing 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 (Unix / Linux, DOS, Windows)

(TTT : 2 hours)

C. Features of latest Windows Operating Systems

(TTT : 3 hours)

INTRODUCTION TO WORD PROCESSOR

Duration: 6 hours

A. Introduction to MS-Word (Latest version)

(TTT : 2 hours)

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

B. Table 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 Document, PDF files
- Hyperlinks and OLE
- Security features in MS-Word
 - Protection of Documents
 - Password for Documents
 - Checking for viruses in macros

INTRODUCTION TO ELECTRONIC SPREADSHEETS

Duration: 15 hours

A. Introduction to MS-Excel (Latest version)

(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 (Latest version)

(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

DATABASES

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 (Latest version)

- 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 Exiting Access

C. Building and Customizing a Database

(TTT : 2 hours)

- Building databases using 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****A. Calendar and Scheduler****(TTT : 1 hour)****B. Microsoft Outlook (Latest version)****(TTT : 2 hours)**

- Configuring Outlook for your email.
- Sending, receiving and managing the email, mail polling, and 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****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 as 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

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)

WEB TECHNOLOGY & SYSTEM SECURITY AND MAINTENANCE

Duration: 10 hours

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)

E. E-Commerce (TTT: 2 hours)

- Web Commerce
- Advertisement
- Purchase Online
- Payment Gateways

F. Electronic Data Interchange (EDI) (TTT: 2 hours)

- What is EDI?
- Components of EDI

E-FILING

Duration: 5 hours

A. Introduction to E-Filing (TTT : 1 hour)

- What is E-filing?
- How is e-filing different from the regular filing of returns?
- E-file benefits
- E-file limitations
- Types of e-filing

B. E-Filing Process, IT Returns, Relevant Notifications, E-Filing security (TTT : 1 hour)

C. Instructions for filing the tax return online (TTT : 2 hours)

- ITR Tax Payer Guide Part-I and Part-II
- Instructions for filling out form ITR-1, ITR-2, ITR-3

D. E-Filing of RoC (TTT : 1 hour)

DIGITAL SIGNATURES AND VERIFICATION OF ELECTRONIC RECORDS

Duration: 2 hours