

## **100 HOURS INFORMATION TECHNOLOGY TRAINING**

### **1. What is Information Technology Training (ITT)? When will it commence?**

While studying PCC a student has to pursue a course on 100 Hours ITT.

### **2. Who will conduct this training?**

Board of Studies has accredited various Regional Councils and Branches of the ICAI and other institutions for conducting 100 Hours ITT. A list of the accredited institutions is available on the website [www.icaai.org](http://www.icaai.org) and also in the Prospectus of the PCC.

### **3. Is there any separate fees for undergoing the training?**

Yes. The accredited institutions will charge fees in the range of Rs.3500–Rs.4000 plus applicable service tax.

### **4. Should a student register with the Board of Studies for undergoing ITT and pay separate registration fees?**

When a student registers for articled / audit training and PCC with the Institute, automatically he is granted registration for ITT. No separate fees is chargeable for registration of ITT with the Institute.

### **5. Will the Board of Studies provide any study materials for ITT?**

Yes. The Board of Studies will offer a set of study modules covering various topics of the ITT which a student should study while undergoing the training. This will be made available along with the study materials.

### **6. Can a student undergo ITT from the first day of registration of articled / audit training and PCC? Is there any preparation time before joining ITT?**

A student can join PCC and articled / audit training by registration with the Institute and simultaneously he is granted registration for ITT. But it will be difficult for a student to join ITT on the same day as there is academic linkage between ITT and Information Technology subject covered in PCC. Prior knowledge of introductory chapters of Information Technology subject is considered to be useful in appreciating various sessions of ITT. Also there is a need for appreciating functions of an articled / audit trainee and role of Information Technology therein. Therefore, a student is allowed to join ITT only on completion of three months of articled / equivalent period of audit training.

### **7. Is 100 Hours ITT part of the articleship training stated in Section E?**

Yes, it is the part of the training. But, for attending 100 Hours ITT, an articled assistant should take permission of the MIT / Principal.

### **8. What is the syllabus of ITT?**

The detailed syllabus is given on Pages 4 – 13 below .

### **9. What is the course duration and break up of various modules of 100 Hours Information Technology Training (ITT)?**

The duration for Information Technology Training is 100 Hours. Presently, it is covered in 20 days @ 5 hours per day. The duration of various topics are as given below:

Sl. No.	Topic	Duration
1.	Computer Fundamentals	1 hr.
2.	Operating Systems	6 hrs.
3.	MS – Word	6 hrs.
4.	MS – Excel	15 hrs.
5.	MS – Power Point	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 hrs.
	<b>Total</b>	<b>100 hrs.</b>

In addition, a student is required to submit a project based on topics learnt during the training. Also see Answer to Question No.11.

#### **10. Is there any Final Examination?**

Yes, the Final online examination would comprise of 200 objective type questions of 1 ½ marks each totaling 300 marks. The weightage of final online examination is 60%. The duration of the same is 3 hours. The final online examination is to be conducted by the accredited institutions only on last Sunday of the month in coordination with ICAI.

#### **11. What is the evaluation pattern of 100 Hours ITT?**

Evaluation comprises of 3 components as stated below:

	Weightage out of 100%
Module tests	20%
Project	20%
Final online examination	60%

A student is required to obtain 60% in aggregate taking into account module tests, project and final examination. In case a student fails to secure 60% or more in aggregate, he / she may be allowed to reappear for online exam for maximum two more attempts. No fee shall be charged by the accredited institutes for such reappearance. However, if a student fails to secure 60% marks even after three attempts, he / she may have to pay a nominal fee not exceeding Rs.300 to the accredited institution for every additional attempt.

**12. Will the Institute issue certificate for completion of 100 Hours ITT?**

Yes, respective Decentralized Offices of the Institute, to which a student belongs, will issue certificate for completion of 100 Hours ITT.

**13. I am a student of PE – II, I have not yet undergone computer training. I will continue with PE – II. Should I have to undergo 250 Hours Compulsory Computer Training?**

All such students are permitted to undergo 100 Hours ITT.

# 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 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 2000**

**(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 Installments, 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)**

<b>Introduction to Presentation Software</b>	<b>Duration: 5 hours</b>
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**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

**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 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 lables)

**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. 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

### **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**

**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 (TTT : 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)

**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**

**(TTT: 5 Hours)**

**Digital Signature And Verification Of Electronic Record**

**(TTT: 2 Hours )**