

Table of Contents of 100 hours of Advance Information Technology Training		
6. Knowledge Statements – Topics (Suggested)		
The suggested knowledge statements which is based on the overall learning objectives and task statements are given below:		
New/Modified Topics to be covered in Advance Information Technology Training	Hrs	Detail syllabus Reference
1. Database Applications using Access: Writing queries, joining tables, Designing forms and reports, calculated column, building criteria expression, using built-in function, managing switchboard and macro, encryption and database security, setting password, working with data access page, importing exporting CSV/Text file.	16	See relevant sheet for details
2. Advance Excel: import and export XML data, XML schema, importing exporting text file, exporting data to XBRL, create macro and its function, Analysis of Auditors Reports, Equity Analysis, PE Ratio, Du-Pont Analysis, Equity Research- concepts, techniques and applications, Statistical Inference, ANOVA (Analysis of Variance Test), Evaluating The Regression Model, Adjusted R-square, Depreciation accounting, Capital budgeting, Risk analysis and investment, Scenario Analysis, Monte Carlo Simulation	20	See relevant sheet for details
3. Computer Assisted Audit Techniques: Importing/exporting of data, using key features of CAAT such as statistics, sampling, stratify, sort, filter, classify, identify duplicates, file definition, data integrity, aging, extract, analytical filter, reporting, gap detection, sequence check, periodicity check, Benford law, etc.	12	See relevant sheet for details
4. Core Banking Solution: Concepts, modules, functions, features, interfaces, parameterization, user creation, granting of access rights, audit logs, using reporting/SQL feature for analysis, reviewing controls at different layers with case study	10	See relevant sheet for details
5. Enterprise Resource Planning: Concepts, Modules, functions, features, implementation aspects, selection, configuration, user creation, access rights, audit logs, reporting, exporting data for relevant reports, security management, Data management, reviewing controls, e-filing,	10	See relevant sheet for details
6. Office automation applications and IT security in a CA's office: IT security at server/client level, wireless security, laptop security, securing Personal computers, Tablets and Mobile Phones. IT applications for financial, cost and management accounting, Management Information Systems, Decision Support Systems, Compliance, reporting	12	See relevant sheet for details
Project report and presentation of case study of IT assurance, consulting, implementation using combination of above applications.	20	Details to be prepared after study materials are developed.
Total Hours	100	

Advance ITT - MS Access

Total Hours - 16	
CHAPTER: 1	
Advanced SQL Queries	
Contents:-	
	Introduction
	Writing Advanced Queries
	Joining Tables in Queries
	Calculated Fields
CHAPTER: 2	
Designing Forms and Reports	
Contents:-	
	Introduction
	Advanced Form Design
	Making effective use of Forms
	Advanced Reports
	Making Reports more effective
CHAPTER: 3	
Building Criteria Expressions	
Contents:-	
	Introduction
	Using Operands in Criteria Expressions
	Using Operators in criteria Expressions
	Setting up a Calculated Column
	Using the Built-In Functions
	Working with Expression Builder
CHAPTER: 4	
Macros and Switchboards	
Contents:-	
	Introduction
	Simplifying tasks with Macros
	Managing Switchboards
CHAPTER: 5	
Data Pages and Protection	
Contents:-	
	Introduction
	Hyperlink fields
	Working with Data Access Pages
	Splitting a database
	Implementing security and Encryption in databases
	Setting Passwords
	Converting an Access database to an ACCDE File
	Packaging a Database with a Digital Signature
CHAPTER: 6	
Importing / Exporting Data	
Contents:-	
	Introduction
	Integrating Access into Business
	Importing a CSV text into a database.
	Importing a TXT file into a database
	Importing an existing database file into a database.

Advance ITT - MS-Excel

Total Hours - 20

CHAPTER: 1

WORKING WITH XML

Contents:-

Introduction of XML in Excel
Refresh connected data
Map and unmap XML elements
Append or overwrite mapped XML data
Create an XML data file and XML schema file from worksheet data
Delete XML map information from a workbook
Export XML data
Turn around expense reports with Excel 2007/2010 and XML
Format the data and layout of an XML table
Import XML data
Rename an XML map
Validate XML data against an XML schema
XML Scheme Definition data type support

CHAPTER: 2

IMPORTING / EXPORTING DATA

Contents:-

Importing data from a text file
Exporting data to a text file
Saving all or part of a workbook to a static web page
Create a Web query parameter query
Exporting data to XBRL – Creating XBRL Instance Documents

CHAPTER: 3

ADVANCES IN MACROS

Contents:-

Introduction
What is Macro?
Recording Macro
Assigning Button to Macro
Absolute and Relative referencing
Summary
Scenarios and Case Studies

CHAPTER: 4	
APPLICATION USING APPLIED FINANCIAL ANALYSIS AND FORECASTING	
Contents:-	
	Analysis of other balance sheet items
	(Leasing, derivatives, Securitization & off balance sheet items)
	Analysis of Auditors Reports
	Analysis of Notes to Accounts
	Impact of non-compliance of Accounting
	Standards.
	Financial Shenanigans
	Equity Analysis
	PE Ratio
	Du-Pont Analysis
	Equity Research- concepts, techniques and applications
	Scenarios and Case Studies
CHAPTER: 5	
APPLICATION USING MATHEMATICAL & STATISTICAL TOOLS FOR	
Contents:-	
	Statistical Tools in financial Analysis
	Statistical Inference
	ANOVA (Analysis of Variance Test)
	Confidence Interval
	Evaluating The Regression Model
	R-square
	Adjusted R-square
	Testing For Statistical significance
	Scenarios and Case Studies

CHAPTER: 6	
APPLICATION OF EXCEL	
Contents:-	
	Depreciation accounting
	Marginal Costing
	Cash Budgeting
	Discounting
	Tax Computations using Excel
	EMI Calculations using Excel
	Sampling
	Summary
	CAPITAL BUDGETING
	Basic Concepts
	Techniques
	Practical Aspects
	RISK ANALYSIS AND INVESTMENT
	Probability
	Sensitivity Analysis
	Scenario Analysis
	Monte Carlo Simulation
	Certainty Equivalent Model
	Decision tree analysis
	Finance Planning.
	Personal financial planning
	Corporate financial planning
	Scenarios and Case Studies

Advance ITT - CAAT

Total Hours - 12

CHAPTER: 1

Introduction to CAAT

Contents:-

	Overview of CAAT Module
	Overall Objective
	What will you learn to do?
	What will you know?
	Introduction
	The all-encompassing Electronic data
	Auditors and CAATs
	Auditors and CAATs
	Need for CAATs
	Obtaining audit data
	Key steps for obtaining data
	Key capabilities of CAATs
	Step by step methodology for using CAATs 8
	Examples of Tests performed using CAATs: 8
	Analytical Review Procedures
	Summary

CHAPTER: 2

Data Analysis and Audit Techniques (including importing/exporting of

Contents:-

	Need for using CAATs
	Key Factors to be considered in Using CAATs
	CAATs Planning Steps
	Audit evidence and CAATs
	CAATs Documentation
	Workpapers
	Planning
	Execution
	Audit Evidence
	Audit Test using CAATs
	Audit Sampling
	Design of the Sample
	Selection of the Sample

CHAPTER: 3

Data Analysis Using Idea

Contents:-

	Importing Data
	Export Data
	Summarization
	Statistics
	Sampling
	Stratification
	Sorting
	Duplicate Detection and Gap Detection
	Aging
	Data Extraction
	Benford's Law
	Consolidation of Data
	Equation Editor
	Reporting
	Field Manipulation

Advance ITT- Core Banking System(CBS)

Total Hours - 10

CHAPTER: 1

CBS Basics and its working methodology

Contents:-

	What is Core Banking Solution (CBS) (including names of renowned CBS)
	Technology behind CBS
	Comparison of TBA (Total Branch Automation) with CBS
	Data Centre and Network Connectivity
	Functions of IT Department under CBS environment
	Modules of CBS
	Operations of CBS Branch
	Security and Controls at Data Centre and Branch

CHAPTER: 2

Other CBS interfaces – their functionality and controls

Contents:-

	Automated Teller Machine (ATM)
	Internet Banking / e-banking
	Real Time Gross Settlement (RTGS)
	Cash Management System (CMS)

CHAPTER: 3

Systems Audit of CBS and its Interfaces

Contents:-

	Introduction to ISA
	Evaluation of security and Controls in CBS
	CBS control and Audit of branches
	using reporting / SQL feature for analysis, reviewing controls at different layers with case study.

Advance ITT- ERP

Total Hours - 10

CHAPTER: 1

ERP: OVERVIEW

Contents:-

	What is ERP concept?
	Business functions and Business processes
	Business Modelling
	ERP and Related Technologies
	Enterprise Resource Planning using Web 2.0
	Open Source ERP Products

CHAPTER: 2

ERP Implementation

Contents:-

	Implementation Life Cycle
	Issues On ERP Implementation
	ERP Implementation -Traps
	ERP Security Audit

CHAPTER: 3

ERP Control and Audit

Contents:-

	Management and Controls
	Security Management
	Data Management

CHAPTER: 4

E-Filing

Contents:-

	eVAT Returns
	eTDS Returns
	eTCS Returns

Advance ITT - Office Automation Applications and IT Security in a CA's Office	
Total Hours-12	
CHAPTER: 1	
IT APPLICATIONS IN CA's OFFICE	
Contents:-	
	Nature of services provided by a CA firm
	Audit
	Taxation related services
	Advisory / consulting services
	Office Automation
	Meaning of Office automation
	Evolution of Office automation
	Important aspects to be considered for office automation
	Applications used in CA's office
	Software
	Client Management
	Resource allocation and scheduling
	Financial Accounting application
	HR and Payroll applications
	Document Management System
	Knowledge Management (KM)
	Hardware / infrastructure
	Personal computers (PC) / Laptops
	Application server
	Email server
	Local Area Network (LAN)
	Wide Area Network (WAN)
	Wireless network
	Private Branch Exchange (PBX)
CHAPTER: 2	
INFORMATION SECURITY IN CA's OFFICE	
Contents:-	
	INFORMATION SECURITY
	Introduction
	Why Information Security?
	Which information assets need to be secured?
	Goals of Information Security
	Information security risks, threats, attacks and vulnerabilities
	Natural threats
	Man made threats
	Exposures
	Risks/ threats / vulnerabilities applicable to respective software and hardware
	Risks/ threats / vulnerabilities applicable to Wireless network, Client Server architecture and communication systems
	Risks APPLICABLE TO Software applications used in a CA's office
	Client Management
	Resource allocation and scheduling
	Financial Accounting application
	HR and Payroll Systems
	Document Management System
	Hardware equipment's
	Best practices
	Network and communication
	Application software
CHAPTER: 3	
Application Using MIS and DSS	
Contents:-	
	Introduction
	Detailed review of two sample applications
	e-Secretary application
	K-DOC application