

SYLLABUS FOR
COURSE ON COMPUTER CONCEPTS PLUS (CCC +)

OBJECTIVE:

The course is a certificate level course, with an aim to equip the workforce entering into / working in government sector with the vital skill set, that is, necessary to cope up with the ever-changing scenario in IT sphere. The course is designed in such a manner, so that, it not only educate an individual with the basic skill set but also enhances the ability of individual to easily grasp the new changes in the dynamic IT field. The course is aimed at skill development in masses, students, employees in professional sectors at middle level. The course may also be considered as an ideal course for re-skilling of an individual and technological advancement. After going through the course, an individual is expected to be equipped with not only the office automation skills but also with the understanding of the latest technologies and e-Gov applications.

The module on financial literacy will enable the individuals to understand the various financial services and be aware of the various schemes of Government of India.

DURATION:

126 Hours. (21 days @ 6 hours/day – Full Time or 42 Days @ 3 hours/day – Part Time)

ALLOCATION OF TOTAL HOURS FOR EACH CHAPTER:

Module	Chapter	Theory Hours	Practical Hours	Total Hours
1.	Introduction to Computer & Basic Concepts	2	2	4
2.	Operating System	4	8	12
3.	Word Processing	4	8	12
4.	Spreadsheets	4	8	12
5.	Presentations	4	8	12
6.	Database Management Systems	4	8	12
7.	Cyber Security	5	5	10
8.	PC Maintenance & Troubleshooting	4	8	12
9.	Networking and Troubleshooting	4	8	12
10.	Latest trends in IECT & e-Governance	6	6	12
11.	Application of Digital Financial Services	1	1	2
12.	Soft Skills	7	7	14
	Total Hours	49	77	126

Module1 – Introduction to Computer & Basic Concepts:

- **What is Computer:** Characteristics of Computer System, Basic Applications of Computer; Processing Unit, Keyboard, mouse and VDU, Other Input devices, Other Output devices, Computer Memory;
- **Concept of Hardware and Software:** Hardware, Software, Application Software, Systems software, Programming Languages; Representation of Data/Information; Concept of Data processing;

After completing this chapter, you will be able to understand computers, understanding its components and its applications.

Module 2 - Operating System:

- **Basics of Operating System:** Operating system, Basics of popular operating system (LINUX, WINDOWS);
- **The User Interface:** Task Bar, Icons, Start Menu, Running an Application;
- **Operating System Simple Setting:** Changing System Date And Time, Changing Display Properties, To Add Or Remove A Windows Component, Changing Mouse Properties, Adding and removing Printers;
- **File and Directory Management:** Types of files, What is a file, Naming conventions, File Extensions, File Pathway, Windows Explorer window, Viewing files, File property dialogue box, Explain file size (bytes, kilo, mega, giga,tera) and abbreviations used, Create a Folder, Move a file (multiple files)into a folder, Delete files and folders, Recovering deleted files, Renaming files, Searching for files, Creating and deleting shortcuts on desktop, How programs may save files in specific location by default. How to find where file is being saved;
- **Desktop:** exploring the desktop, cleaning the desktop;
- **Keep Software updated:** how to set automatic updates for windows operating system.

After completing this chapter, you will be able to understand GUI Based operating systems and its components, file management.

Module 3 – Word Processing:

- **Word Processing Basics:** Opening Word Processing Package, Menu Bar, Using The Help, Using The Icons Below Menu Bar;
- **Opening and closing Documents:** Opening Documents, Save and Save as, Page Setup, Print Preview, Printing of Documents;
- **Text Creation and manipulation:** Document Creation, Editing Text, Text Selection, Cut, Copy and Paste, Spell check, Thesaurus;
- **Formatting the Text:** Font and Size selection, Alignment of Text, Paragraph Indenting, Bullets and Numbering, Changing case;
- **Formatting a document:** Set page margin, paragraphs and sections within a document, Adjust indents and hanging indents;
- **Table Manipulation:** Draw Table, Changing cell width and height, Alignment of Text in cell, Delete / Insertion of row and column Border and shading, Table Formula;
- **Inserting Graphic Elements:** Insert a clip art picture, insert symbols and special characters, adding a watermark; Using word art; adding a drop cap;
- **Mail Merge:** Using mail merge; printing mailing labels; merging for sending emails using outlook.
- **Macros , Use of local language**

After completing this chapter, you will be able to acquire skills in Word Processing Basics.

Module 4 – Spreadsheet:

- **Elements of Electronic Spread Sheet:** Opening of Spread Sheet, Addressing of Cells, Printing of Spread Sheet, Saving Workbooks;
- **Manipulation of Cells:** Entering Text, Numbers and Dates, Creating Text, Number and Date Series, Editing Worksheet Data, Inserting and Deleting Rows, Column, Changing Cell Height and Width;
- **Formulas and Function:** Using Formulas, Function, basic mathematical operators, using AutoSum etc., using formulas with multiple cell references, finding the right function, relative and absolute cell references, fixing formula errors; Charts: learning about charts, creating charts; Working with graphics; Clip Art; SmartArt.

After completing this chapter, you will be able to acquire skills in creating spreadsheet and its features.

Module 5 – Presentation:

- **Basic Concepts of presentation:** Using PowerPoint, Opening A Power Point Presentation, Saving A Presentation;
- **Creation of Presentation:** Creating a Presentation Using a Template, Creating a Blank Presentation, Entering and Editing Text, Inserting And Deleting Slides in a Presentation;
- **Preparation of Slides:** Inserting Word Table or An Excel Worksheet, Adding Clip Art Pictures, Inserting Other Objects, Resizing and Scaling an Object;
- **Presentation of Slides:** Viewing A Presentation, Choosing a Set Up for Presentation, Printing Slides And Handouts;
- **Slide Show:** Running a Slide Show, Transition and Slide Timings, Automating a Slide Show.

After completing this chapter, you will be able to acquire skills in creating and developing a presentation and its features.

Module 6 – Database Management System:

- Introduction to the concepts of database management system; Creating a database;
- **Creating a Table:** Concepts of field, field types; entering data in a table, preview and print a table, changing row and column height; closing and opening of table, sorting of table, finding and replacing texts; using queries wizard; creating report from tables / queries from report wizard, modifying a report, printing of report; creating a form using wizard, entry in the forms; basic of formatting of forms and reports.

After completing this chapter, you will be able to acquire skills in creating and developing forms, queries and reports

Module 7 – Cyber Security:

- **Cyber Security:** Basic concepts of threats, vulnerabilities, controls; risk; confidentiality, integrity, availability; security policies; security mechanisms; Data Security and protection: concept, creating strong passwords; how to stay safe when surfing on internet: “In private Browsing”, identifying secure website, clear cookies;
 - **Know how to identify a secure web site:** https, lock symbol; Security Considerations: Know about security threats from web sites like: viruses, worms, Trojan horses, spyware. Understand the term malware; Netiquettes;
 - **Netiquettes; Security Considerations:** Be aware of the possibility of receiving fraudulent and unsolicited e-mail; phishing, Recognize attempted phishing;
 - Basics of Software Licensing
- Overview and understanding of IT Act 2000.

After completing this chapter student will be able to know about security features & vulnerabilities and will be able to secure its network from attacks.

Module 8 - PC Maintenance, Security and Troubleshooting:

- **Computer Maintenance and Security:** Overview of Computer Maintenance and Security, Inbuilt PC Security, tools, Securing documents, Antivirus, Upgrading Operating System and Application software. security; Cleaning the monitor, keyboard, CPU;
- **Deleting unnecessary programs and files:** Disk cleanup, deleting toolbars; defrag hard drive;
- **Computer Maintenance Programs:** Ccleaner, myDefrag, Spinrite etc.;
- **Basic troubleshooting:** restart computer, checking cables, uninstalling a software, start windows in safe mode etc.

This unit will introduce about maintenance and troubleshooting of PC. This unit will introduce some maintenance and some troubleshooting techniques to use if there is a problem.

Module 9 – Networking & Troubleshooting:

- **Basic of Computer Networks:** LAN, WAN, Wi-Fi, Broadband, Bluetooth;
- **Internet:** Concept of Internet, Applications of Internet, Connecting to the Internet, Troubleshooting; WWW, TCP/IP, DNS, Search Engine; Key web browser features, Brief about switch, router, gateway;
- **Various applications of Internet:** e-mail, information gathering, retailing etc.;
- **Methods of connecting to the Internet:** Dial up, ISDN and broadband; Brief introduction to Internet addressing, Internet protocols (TCP/IP, FTP and HTTP);
- **Define and understand the terms:** Internet Service Provider (ISP), Uniform Resource Locator (URL), hyperlink;
- Overview of use of search engines and e-mail messages;
- **Instant Messaging and Collaboration:** Using Instant messaging, Instant messaging providers,
- Use of Social Networking Sites viz. Facebook, Twitter etc.; Introduction to the concepts of IPv4 and IPv6 networks;
- Network troubleshooting

After completing this chapter, you will be able to understand world of internet, its advantage and understand the Internet as a powerful tool.

Module 10 – Latest Trends in IECT & e-Governance:

- **Applications of IECT:** e-governance, Multimedia and Entertainment;
- Project Management using IT tools & related applications
- **Introduction to Cloud Computing:** What is cloud computing, Properties & Characteristics, Service models, Deployment models; Concepts of: IaaS (Infrastructure as a Service), PaaS (Platform as a Service), SaaS (Software as a service), DaaS (Desktop as a Service).
- Introduction to Mobile Computing, its components and characteristics.
- Digital signature: definition as per ITA 2000, how digital signature works; role of certifying authorities: Digital Certificates and their uses, Certifying Authority regulation in India, Obtaining a trial version of a Digital Certificate; legal aspect covering digital signatures in India; how to use digital signatures on electronic documents.
- **e-Governance:** Definition of e-Governance, Pillars of e-Governance, Infrastructure for e-Governance, Mission Mode Projects (At least 5), Familiarization with terminology like change management, processing engineering, Govt. Processing engineering and Governance, e-Governance project life cycle, electronically delivery of services, messaging system and case study of any 5 public utility portal related with the Department (especially, public grievance redressal

system, RTI, Vigilance, Department working and financial inclusion, linkage with Aadhar etc.)

After completing this chapter, you will be able to understand the concepts of cloud computing and mobile computing, you will be able to understand the IT Act 2000 on the nature and operation of digital signatures and get an idea about e-Governance & its benefits.

Module 11 – Application of Digital Financial Services

Why savings are needed, Why save in a bank, Banking products-ATM card, Rupay Card, Banking Instruments-Cheque, Demand Draft (DD), Currency Notes, Banking Services Delivery Channels, Know Your Customer (KYC), Opening of bank account and documents required, Types of bank accounts, Bank's services including remittances, loan, mobile banking, Overdraft, Pension etc., Types of Insurance, Pradhan Mantri Jan Dhan Yojana (PMJDY), password security and ATM withdrawal, Insurance, Social Security Schemes-Atal Pension Yojana (APY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Mudra Yojana (PMMY).

After completing this chapter, you will be able to understand the concepts of internet banking and the financial services provided by the Government, banking products etc. you will also be aware of the various social security schemes of the country and utilize it for your benefit.

Module 12 – Soft Skills:

- **Effective communication:** features of effective communication;
- Communication Skills & Call Handling Skills
- **Listening skills:** Types of Listening; Tips for Effective/ Listening: Academic Listening- (lecturing), Listening to talks and Presentations, Listening to Announcements.
- Corporate culture
- Behavioral Skills
- Vocabulary Development
- Pronunciation
- Reading
- Listening And Speaking
- Writing

The objective of this Chapter is to develop the written, verbal, non-verbal, and technical communication skills.

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