Zed-King
GROUP OF INSTITUTIONS
ISO 9001: 2015 Certified

EXPERT COMPUTER COURSE (ECC)

ALLOCATION OF TOTAL HOURS FOR EACH CHAPTER:

Chapter	Chapter	Theory Hours	Practical Hours	Total Hours
1.	Introduction to Computer & Basic Concepts	3	6	9
2.	Operating System	3	6	9
3.	Basic Computer Hardware	5	10	15
4.	Word Processing	5	10	15
5.	Spreadsheets	5	10	15
6.	Presentations	5	10	15
7.	Database Management Systems	4	8	12
8.	Cyber Security	6	6	12
9.	PC maintenance, security & troubleshooting	5	10	15
10.	Networking and troubleshooting	4	8	12
11.	Latest trends in IECT & e-Governance	4	9	13
12.	Application of Digital Financial Services	1	1	2
13.	Electronic Mail – A detailed view	4	8	12
14.	Introduction to Multimedia	5	9	14
15.	HTML Programming Basics	4	8	12
16.	Soft Skills	9	9	18
	Total Hours	**72**	**128**	**200**

Zedking Group Of Institutions

SYLLABUS OUTLINE

Module 1 - 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- notepad, paint etc..;
- **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 – Basic Computer Hardware:

- Introduction,
- Getting started with PC hardware support, Electricity and power systems, CPUs and motherboards,
- Basic Input/Output System, Memory systems, Bus structures, color combination of network cable Expansion cards, Ports, connectors, and cables,
- Data storage devices,
- Video and multimedia input/output devices,
- Printers, Portable computers and devices, Connecting computers,

The objective of this Chapter is to acquaint an individual with the concepts of computer hardware.

Zedking Group Of Institutions

Module 4 – 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 formulas;
- **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.
- Use of local language
- Macros

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

Module 5 – 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.
- Use of Pivot Table and Pivot Chart.

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

Module 6 – Presentation:

Zedking Group Of Institutions

- **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 7 – Database Management Systems:

- 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 8 – 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, DOS, DDOS;
- **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 konow about security features & vulnerabilities and will be able to secure its network from attacks.

Module 9 - PC Maintenance, Security & Troubleshooting:

Zeal Group of Institutions

- **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.
- Windows installation and upgrades, CPUs and motherboards, Memory systems, Expansion cards, Data storage devices, Ports, connectors, and cables, Printers and scanners, Display devices, Portable computers and devices, Networking, Security, Maintaining the PC environment.

This unit will introduce about maintenance and troubleshooting of PC.

Module 10 – 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;
- Internet protocols (TCP/IP, FTP and HTTP);
- **Define and understand the terms:** Internet Service Provider (ISP), Uniform Resource Locator (URL), hyperlink;
- 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.
- Using Favorites Folder, Downloading Web Pages, Printing Web Pages, Understanding URL, Set the web browser Home Page/Start page; Bookmark a web page, Delete a bookmark, Publishing on the Web, Downloading Web Pages, Printing Web Pages; Complete a web-based form using: text boxes, drop-down menus, list boxes, check boxes, radio buttons; Understanding benefits of Search Engines and Popular Search Engines (Google, Alta Vista, Excite);
- Commerce on Internet, Impact of Internet on Society.
- 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

Module 11 - 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

Zeal Group Of Institutions

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. Legal aspects covering digital signatures in India.

- **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 12 – 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 different 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 13 - ELECTRONIC MAIL – A detailed view:

- **Basics of E-mail:** What is an Electronic Mail,
- **Mailbox:** Inbox and Outbox, Creating and Sending a new E-mail, Forwarding an E-mail message, Sorting and Searching emails, Document collaboration; instant Messaging and Collaboration: Using Instant messaging, Instant messaging providers, Netiquettes;
- Configuring mail on mobile, creating groups, message formations, do's & don't using mobile, attachment, difference between Bcc & Cc
- **Email Protocols:** SMTP, POP3, IMAP4, MIME5; Email Clients: Netscape mail clients, Outlook Express, web based E-mail; Email encryption.

The objective of this Chapter is to develop the skills to effectively compose emails and its features.

Module 14 – Introduction to Multimedia:

- Basic concepts, Hardware requirement for multimedia computer; Textural information;
- **Components of Multimedia:** Images and their types, Animation, Digital audio, Digital Video Software for Multimedia, Introduction to MS-Publisher and Photodraw, Developing simple application and presentations using MS-Publisher.

The objective of this Chapter is to understand the concepts of multimedia and building small applications/presentations using multimedia.

Zeking Group Of Institutions

Module15 – HTML Programming Basics:

- Concepts of HTML page structure,
- FrontPage / Interdev
- HTML text, HTML Links, Using CSS, Using tables,
- HTML document tables,
- HTML frames,
- HTML images,

The objective of this chapter is to develop the understanding of HTML.

Module 16 – 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
- CRM Concepts
- Selling skills
- Behavioral Skills
- Vocabulary Development
- Pronunciation
- Reading
- Listening And Speaking
- Writing
- Integrated Skills
- Non-Verbal Communication

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

Zedking Group Of Institutions