DATA ENTRY OPERATIONS (336)

CHAPTERWISE NOTES
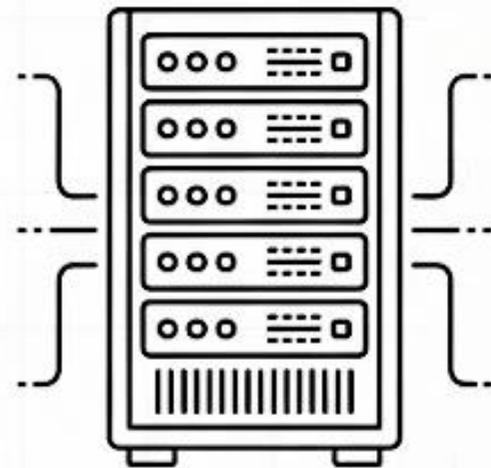
DATA ENTRY OPERATIONS

Sl. No.	Chapters (Public Examination)	Marks
1	L-1: Basics of Computer	9
2	L-4: Formatting of Documents	12
3	L-10: Internet	7

Component	Details	Marks
Public Exam (Selected Lesson 1,4,10)	Total Chapters : 3	28
Practical Exam	Practical	60
TMA	Tutor Marked Assignment	12
Final Possible Marks		100 Marks

TABLE OF CONTENTS

1

BASICS OF COMPUTER

Introduction

In this lesson the basic structure of the computer system, its parts, functions and types of software are studied. Computer hardware and software work together. In this chapter the structure of computer, input-output devices, memory, software and computer languages have been described.

What is a Computer?

- A computer is a device that transforms **data** into meaningful information.

- It can accept, store, process and retrieve data.

- Main characteristics – high speed, accuracy, storage capacity, versatility.

Computer Organization

Five basic functions of a computer:

- **Input –** entering data/instructions

- **Storage (Memory) –** storing data

- **Processing –** processing the data

- **Output –** displaying the result

- **Control –** control of all operations

Units:

- **Input Unit –** accepts data

- **Control Unit (CU) –** controls all operations

- **Memory Unit –** stores data

- **Arithmetic Logic Unit (ALU) –** addition, subtraction, multiplication, division,
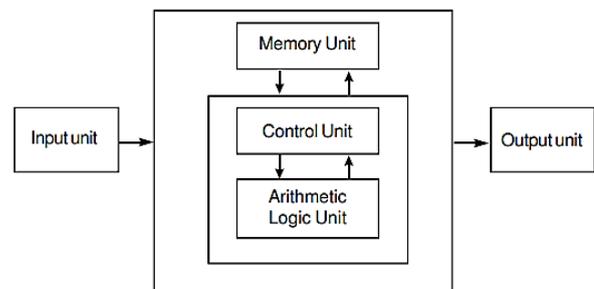
- **Output Unit –** presents the result

- **CPU (Central Processing Unit) =** ALU + CU

Peripheral Devices

- Input devices

- Output devices

- Other peripheral devices

Input Devices

- Keyboard

- Mouse

- Light Pen

- Optical Scanner

- Touch Screen

- Microphone

- Track Ball

Keyboard

- The most common input device

- **QWERTY keyboard is more popular**

- Generally 104 keys

Mouse

- Hand-operated device

- **Point and Click action**

- Menu selection, icon transfer

Light Pen

- Light sensitive device

- For selecting objects on the screen

Optical Scanner

- Converts image into electronic form

- **OCR (Optical Character Recognition) –** converting scanned image into text

Touch Screen

- Giving input by touching the screen

- Alternative to keyboard

Microphone

- Sound input device

- Two types – Desktop, Hand held

Track Ball

- Device like an inverted mouse

- Useful in less space

Output Devices

- Monitor

- Printer

- Plotter

- Speaker

Monitor

- Main output device

Types:

- o **CRT (Cathode Ray Tube)**

- o **LCD (Liquid Crystal Display)**

- Resolution – 800×600, 1024×768 etc.

Printer

Types:

- **Laser Printer –** high quality, fast

- **Inkjet Printer –** printing through ink

- **Dot Matrix Printer –** low quality, more noise

- **Line Printer –** high speed, used in large computers

Plotter

- For making large pictures/designs

- Types:

  - o **Flat Bed Plotter**

  - o **Drum Plotter**

Speaker

Sound output device

Memory System in Computer

Two types:

- o **Primary Memory – RAM**

- o **Secondary Memory – CD-ROM, Pen Drive**

- Primary memory is fast

- Data is lost when the computer is switched off

Software

- A group of instructions

- Gives instructions to hardware to perform work

Classification:

- **System Software**

- **Application Software**

System Software

- For operating the computer

- Example: **Operating System (OS)**

- Popular OS – Windows, Unix, Linux

Utilities

- Antivirus

- File Compression

- File Management

Application Software

For specific tasks

Types:

- **Generalized Package**

  - Word Processing

  - Spreadsheet

  - Presentation

  - Database

- **Customized Package**

  - Payroll

  - Inventory Control

  - Student Information System

Computer Languages

1- Low Level Languages

- **Machine Language –** based on 0 and 1

- **Assembly Language –** use of mnemonics

**2- High Level Language**

- Easy to understand

- Not machine dependent

Examples:

- **BASIC:** A simple and beginner level high level programming language, which is easy to learn.

- **COBOL:** A high level language developed for commercial and business applications.

- **FORTRAN:** A programming language developed for scientific and mathematical calculations.

- **C :** A structured programming language, which is used in making system and application software.

- **C++ :** An object oriented programming language, which is an advanced form of C language.

Compiler and Assembler

- **Compiler –** converts high level language into machine language

- **Assembler –** converts assembly language into machine language

- Source Program → Object Program
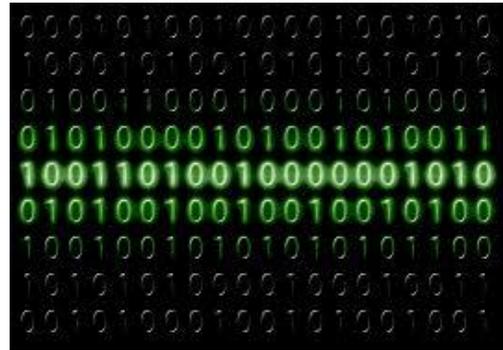
TOP 5 QUESTIONS

Q-1. Write the five basic functions of a computer.

Answer- The five basic functions of a computer are – input, storage, processing, output and control. All these functions together make the computer fully capable of working.

Q-2. What is CPU?

Answer- CPU stands for Central Processing Unit. It includes ALU and CU. It is the brain of the computer that performs all calculations and control functions.

Q-3. Write the difference between system software and application software.

Answer- System software performs the task of running and controlling the computer, such as operating system. Application software is made for specific tasks, such as word processing or spreadsheet.

Q-4. Tell the difference between high level and low level language.

Answer- Low level language is based on machine and is difficult to understand. High level language is simple, user friendly and not machine dependent.

Q-5. Write the types of printer.

Answer- The main types of printer are – Laser Printer, Inkjet Printer, Dot Matrix Printer and Line Printer. Their speed, quality and usage are different.

2

FORMATTING DOCUMENTS

Introduction

In this chapter typing text in a document, editing, formatting, copying-cutting and doing page setting have been taught. With the help of Word 2007, text can be made attractive and well-organized.

Working With Text

Typing Text

- The text is displayed where the cursor is located.

- When the line is completed, the text automatically moves to the next line.

- Press Enter to create a new paragraph.

Inserting Text

- Change the cursor position using Arrow Keys or Mouse.

- Shortcuts:

  o   Home – beginning of the line

  o   End – end of the line

  o   Ctrl+Home – beginning of the document

  o   Ctrl+End – end of the document
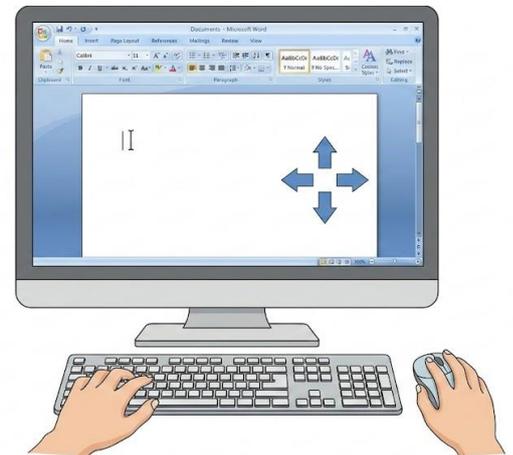
Spacebar and Tabs

- Use Spacebar for distance between words.

- Use Tab Key to create columns.

- Do not use extra spaces.

Paragraph Markers (¶)

- The ¶ symbol shows returns, spaces, tabs.

- Show or hide using the Show/Hide button.

Selecting (Highlighting) Text

- Word – Double Click

- Paragraph – Triple Click

- Entire document – Ctrl + A

Deleting Text

- **Backspace –** deletes the text to the left.

- **Delete –** deletes the text to the right.

Replacing Text

- Select the text → type new text.

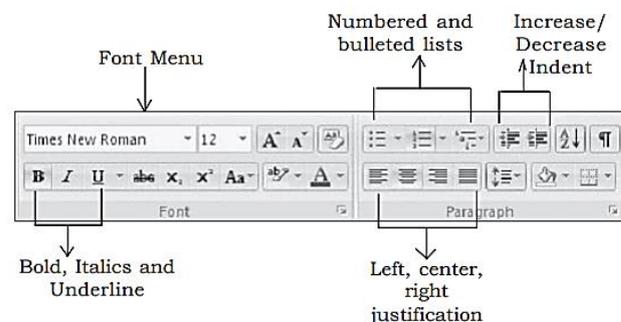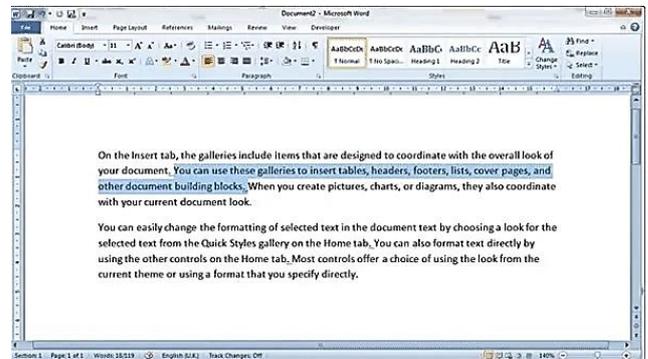- The old text will be replaced automatically.

Click and Type

Text can be inserted by double clicking anywhere on the page.

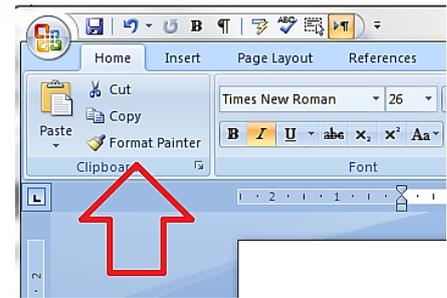## Formatting Text

Main options:

- **Font Face –** type of letters

- **Font Size –** size of letters (in Points)

- **Bold, Italic, Underline –** letter style

- **Alignment** – Left, Center, Right, Justify

- **Indent Increase/Decrease**

- **Highlight Color**

- **Font Color**

Format Painter

- Applies the formatting of one text to another.

Formatting Paragraphs

- A new paragraph is created by pressing Enter.

- Paragraph format applies to the entire paragraph.

Line Markers

- Shift + Enter – new line, but not a new paragraph.

Center, Right and Left Alignment

Text can be aligned Left, Center, Right or Justify.
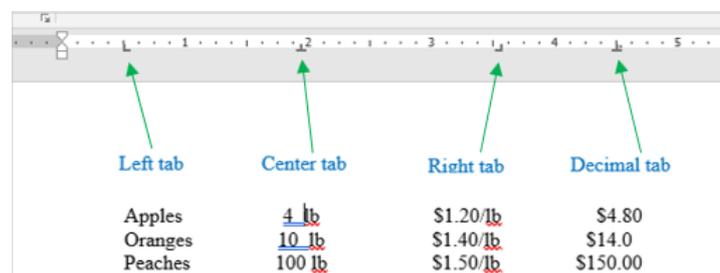
Indenting Text

- Indent the paragraph using **Indent Marker.**

- **Hanging Indent –** indent all lines except the first line.

Tab Stops

1. Default Tab – 0.5 inch

Types:

- Left Tab

- Center Tab

- Right Tab

- Decimal Tab

Line Spacing

- Single

- 1.5 Line

- Double

Paragraph Spacing

- Before and After spacing can be set.

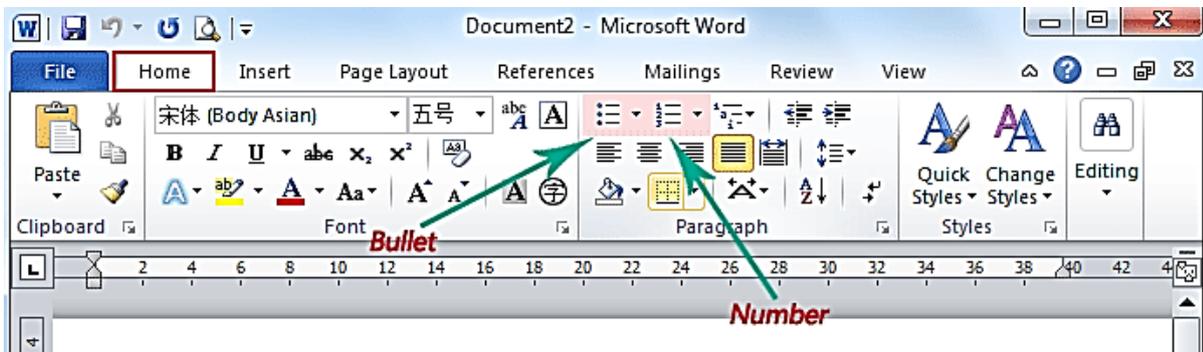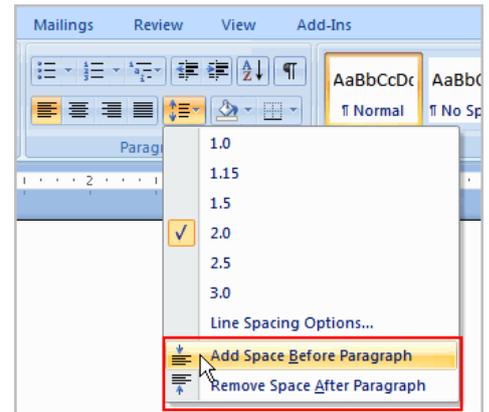- When a paragraph is deleted, extra blank line does not remain.

Borders and Shading

- Border can be applied around the paragraph.

- Shading can be applied in the background.

Bulleted And Numbered Lists

Creating a Bulleted and Numbered List

- Choose Bullets or Numbering from Formatting Toolbar.

- On pressing Enter, the next bullet is created automatically.

Nested List

A sub-list is created by Increase Indent.

Formatting Bulleted and Numbered Lists

- The bullet symbol can be changed.

- The Number Style can be changed.

Copying Text And Moving (Cutting) Text

Use of Clipboard

- Copied or Cut text is stored in the **Clipboard.**

- It can be reused by Paste.
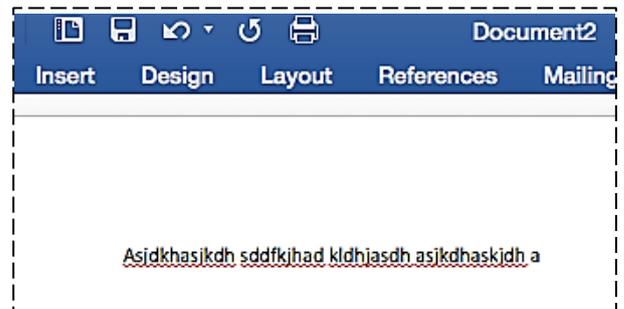
Moving Text

Ctrl + X → Ctrl + V

Copying Text

Ctrl + C → Ctrl + V

Spelling And Grammar

- Red line under incorrect word.

- Green line under grammar error.

- Press F7 to check.

- Ignore, Change, Add options available.

Page Formatting

Page Design from Page Layout Tab.

Page Margins

- Can be changed using Ruler.

- Can be set using Page Setup Dialog Box.

- Predefined Margin options available.

TOP 5 QUESTIONS

Q-1. What is text formatting?

Answer- Making the text attractive by changing its style, size, color and Alignment is called text formatting. It includes options such as Font, Size, Bold, Italic etc.

Q-2. What is the use of Format Painter?

Answer- Format Painter is used to copy the formatting of one text and apply it to another text. By this, the same style can be applied quickly.

Q-3. What is Clipboard?

Answer- Clipboard is a temporary memory where Cut or Copied text is stored and can be pasted later.

Q-4. Tell the difference between Line Spacing and Paragraph Spacing.

Answer- Line Spacing is the distance between two lines, whereas Paragraph Spacing controls the distance between two paragraphs.

Q-5. Write the process of checking Spelling and Grammar.

Answer- Spelling and Grammar can be checked by pressing F7. For an incorrect word, select the correct word from the Suggestion Box and click on Change.

3

INTRODUCTION TO INTERNET

Introduction

In this chapter the basic concept of Internet, its uses, types of connections, working process and the study of e-mail and web browser have been done. Internet is a fast and effective medium of information exchange. It is extremely useful for education, research and communication.

What Is Internet

- Internet is a **worldwide network**.

- It is an **interconnection** of small and large networks.

Applications Of Internet

- Sending messages through **e-mail**

- **File Transfer**

- Browsing information on the **web**

- Chatting

- Searching databases

- Reading news

- Sending/receiving animation and pictures

- Creating websites
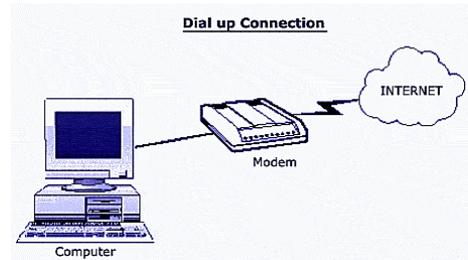
Getting Internet Connection On Your Computer

- It is necessary to take connection from Internet Service Provider **(ISP)**

- Monthly/annual charges have to be paid

- Choose connection according to requirement
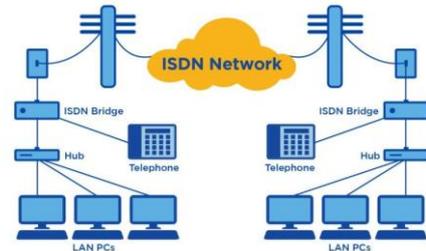
Types Of Internet Connections

(a) Dial-up

- Connection through telephone line

- Connect by dialing ISP number

(b) ISDN

- Based on digital phone line

- 128 KBPS speed

- Call and data possible on the same line

(c) Through Leased Lines:

- Permanent connection

- Available 24×7

- Mostly used in institutions

(d) DSL (Digital Subscriber Line)

- High speed broadband connection

- Both internet and call possible through phone line

How does Internet work?

- Data is divided into small packets (Packets)

- Each packet is attached with a **Header**

- Packets reach the destination through different routes

- **Reassembled** again at the destination

- **TCP/IP (Transmission Control Protocol/Internet Protocol)** performs the work of sending and checking packets
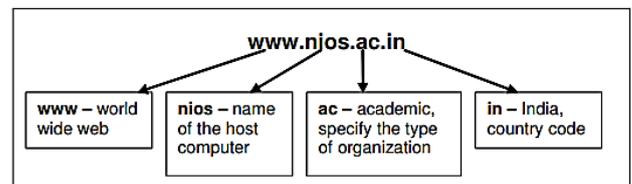
Frequently Used Terms In Internet

1. WWW (World Wide Web) : Collection of web pages

2. Web Server: The computer in which web pages are stored

3. Hyperlink: A link connecting one page to another page

4. HTML (Hyper Text Markup Language): Language for creating web pages

5. Web Page: Electronic document written in HTML

6. Website: Group of related web pages

7. URL (Uniform Resource Locator): Unique address of a web page

8. IP Address: Numerical address of a computer on the Internet

9. DNS (Domain Name System): System to convert domain name into IP Address

Understanding Internet Address

- Domain name gives unique identification

- Example: www.nios.ac.in

- The right part shows organization/country

www.nios.ac.in

| **www** – world wide web | **nios** – name of the host computer | **ac** – academic, specify the type of organization | **in** – India, country code |

Organizational Domains

- .ac – Academic

- .com – Commercial

- .edu – Educational

- .gov – Government

- .net – Network

- .org – Organization

Geographical Domains

- .in – India

- .au – Australia

- .jp – Japan

- .uk – United Kingdom

- .us – United States

Web Browser

What is a Browser?

- Software that displays web pages

- Brings information by sending request to server
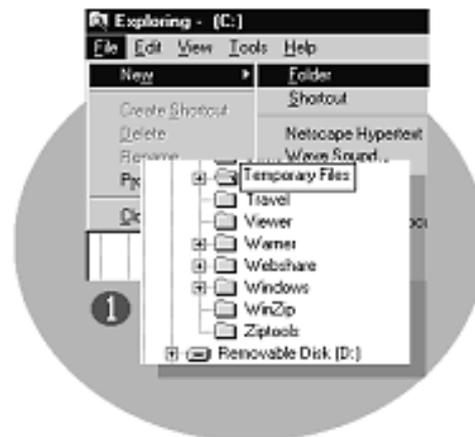
Popular Browsers:

- Internet Explorer

- Netscape Navigator

Saving a Web Page

- **Text File**

- **Web Page, HTML Only**

- **Web Page, Complete**

- **Web Archive (.MHT)**

Downloading Files

- Create Temporary Folder

- Click on download link

- Save the file

- Complete installation

- Delete temporary file

Internet Services

Search Engine

- Program to search information

- Displays list of results

Main Search Engines:

- Google

- Yahoo

- MSN Search

- Ask Jeeves

- Altavista

E-Mail (Electronic Mail)

- Method of sending messages through Internet

- Fast, cheap and available 24×7

Popular Services:

- Yahoo Mail

- Hotmail

- Gmail

- Rediffmail

1. How does E-mail work?

- E-mail is sent from one computer to another through Internet.

- Message first reaches Mail Server.

- Server sends it to recipient's mail server.

- When recipient logs-in, message is downloaded.

- The whole process completes in a few seconds.

2. Sending and Receiving Messages

Sending Message

- Internet connection is necessary.

- Message is sent through SMTP (Simple Mail Transfer Protocol).

- Message first goes to sender's mail server.

- From there it is sent to recipient's mail server.

Receiving Message

- Recipient must have an e-mail account.

- Message is received through POP (Post Office Protocol).

- On logging-in, message appears in inbox.

Components of an E-mail Address

- User ID

- @ symbol

- Host Name (Domain Name)

- Top Level Domain (.com, .gov)

sksharma@yahoo.com

Setting up an E-mail Account

- A new e-mail account can be created in a few minutes.

- Personal information has to be filled.

- A **User ID** and **Password** have to be chosen.

- User ID becomes part of the e-mail address.

- User ID can contain letters and numbers, no blank space.

SMTP

- **Simple Mail Transfer Protocol**

- Standard protocol for sending e-mail

POP

- **Post Office Protocol**

- Protocol for receiving e-mail

Sending E-mail

- Click on **Compose button.**

- Write recipient's e-mail address **in To.**

- Write **subject** in Subject.

- Write message in **Body.**

- **Cc** – for carbon copy.

- **Bcc** – for blind carbon copy.

- Attach file using **Attach Files.**

- Finally click on **Send.**

Telnet

- Network protocol

- Establishes remote connection with server

TOP 5 QUESTIONS

Q-1. What is Internet?

Answer- Internet is a worldwide network that connects various small and large networks. It is a fast medium of exchange of information, messages and data.

Q-2. What is TCP/IP?

Answer- TCP/IP is the main protocol of Internet that sends and checks data in packets. It connects computers with each other on the Internet.

Q-3. What is URL?

Answer- URL (Uniform Resource Locator) is the unique address of a web page which tells where that page is located on the Internet.

Q-4. Write the difference between SMTP and POP.

Answer- SMTP is the protocol for sending e-mail, whereas POP is used for receiving e-mail.

Q-5. Tell the difference between Dial-up and Leased Line.

Answer- Dial-up is a temporary connection that connects through phone line. Leased Line is a permanent 24×7 connection that is mostly used in institutions.