Operating System

Unit-3

Application Software

A software that performs a single task and nothing else is called **application software**. Application software are very specialized in their function and approach to solving a problem. So a spreadsheet software can only do operations with numbers and nothing else. A hospital management software will manage hospital activities and nothing else. Here are some commonly used application software −

- Word processing
- Spreadsheet
- Presentation
- Database management
- Multimedia tools

Networking Basics

It refers to inter-connected computing devices that can exchange data and share resources with others. Networks can be:

- Wired- They are faster and more secure and ports are also found in all computers. They also have shortcomings as they require wires, are expensive and difficult to run.

- Wireless- They are easier to setup and do not require wires, but they are not as secure slower and limited by range.

Types of Network

- **Peer to Peer-** In a peer to peer network all nodes are equal and any node can talk to any other node. No node has any special role. They are easier to setup, more resilient, less expensive. They are less secure and more difficult to administer and backup.

- **Client Server-** In a Client Server network a server has a special role. A client connects to a server to use the appropriate services. They are easy to secure, administer and backup. They are expensive and network traffic get concentrated.

Network Size

Networks vary considerably in size. The following are commonly used terms:

- **PAN** -Personal Area Network – Linking local devices e.g., PC to printer

- **LAN** – Local Area network- links devices in an office or offices

- **MAN** – Metropolitan Area network – links devices across multiple buildings like a campus

- **WAN** – Wide area network – links devices across a country/countries.

Basics of MS Office

Microsoft Office is a software which was developed by Microsoft in 1988. Microsoft Office or MS Office can be seen as a form of a collection of office-related applications. This Office suite comprises various applications which form the core of computer usage in today's world. Various applications of Microsoft Office along with each of their functions.

- MS Word
- MS Excel
- MS Power Point

MS Word

MS Word is a software for creating, storing and manipulating text documents. It allows you to −

- Create, save and edit documents
- Format text properties like font, alignment, font color, background color, etc.
- Check spelling and grammar
- Add images
- Add header and footer, set page margins and insert watermarks

MS Excel

MS Excel is a software that assists users in processing and analyzing tabular data. It is a computerized accounting tool. Data is always entered in a **cell** (intersection of a **row** and a **column**) and formulas and functions to process a group of cells is easily available. It allows the user to:

- Simple calculations like addition, average, counting, etc.
- Preparing charts and graphs on a group of related data
- Data entry
- Data formatting
- Cell formatting
- Calculations based on logical comparisons

MS Power Point

MS Power point enables user to demonstrate information broken down into small chunks and arranged on pages called **slides**. A series of slides that present a coherent idea to an audience is called a **presentation**. The slides can have text, images, tables, audio, video or other multimedia information arranged on them.

Animation & Video Making

Animation means giving life to any object in computer graphics. It has the power of injecting energy and emotions into the most seemingly inanimate objects. It is one of the most important application of computer and find wide uses in various fields such as VFX, movies, TV shows, media and quality enhancement of various data presented.

Virtual Communication

Virtual communication is a mode of communication that includes the use of technology - audio and video to communicate with people who are not physically present in front of us. Virtual communication started way back with the invention of telephone but the advent of webcams, video conferencing and instant communications, which made virtual communication a big hit.

Telecommuting

Telecommuting is working from a remote location outside of a traditional office. The remote location can be from home, a coffee shop, or hotel room. The Internet, faxes, phones, webcams, and instant messaging are some of the technological advances that enable this type of work arrangement. Most telecommuters work in the financial, high-tech, and communications industries.

Safety & Security

It is essential to protect are computers from various threats like viruses,

worms, spam and hacking.

- Viruses- It is a malicious code that duplicates itself and corrupts the computer system.
- Worms- These are the programs that multiply and occupy the hard disk space thus making the computer extremely slow.
- Spam- These are the unwanted e-mails present in the mailbox.
- Hacking- It refers to taking advantage of a computer system and gaining access to it and stealing valuable data.
- Piracy- It is the use, theft, production or distribution of copyrighted software.
- Identity Theft- It means to steal someone's identity and using it for illegal purposes.

Thus to remain safe from these we must use a high quality antivirus and refrain from visiting illegal or unsafe sites or e-mails.

Short Keys & Full Forms

- Ctrl +Z - Undo
- Ctrl +Y - Redo
- Ctrl +C - Copy
- Ctrl +V - Paste
- Ctrl +X - Cut
- Ctrl +A - Select All
- Ctrl +P - Print
- Ctrl +I - Italics
- Ctrl +B - Bold
- Ctrl +S - Save

- WWW- world wide web
- HTTPS- Hyper Text Transfer Protocol
- IP- Internet Protocol
- URL- Uniform Resource Locator
- USB- Universal Serial Bus
- AI- Artificial Intelligence
- ATM- Automatic Teller Machine
- CPU-Central Processing Unit