Module 2 : {Installation and Maintenance of Hardware and its components}

# Topic : User Management

## Level basic :

Q1 : What is user management ?

A : Creating, modifying, and deleting user accounts, setting permissions and ensuring secure access to the computer system is called user management .

Q2 : Why is user management needed ?

A : User management is needed to control access, maintain security, and organize user permissions on computer systems, ensuring that only authorized persons can access the system .

## Level intermediate :

Q1 : Where can we access the user management?

A : We can access user management in windows via control panel in user management tab.

Q2 : What are the features of user management?

A : With user management we can create or delete user account , manage password security , and control system access .

# Topic : File and folder permissions

## Level basic :

Q1 : What is file folder permission?

A : File and folder permissions control who can access, modify, or execute files and folders on a computer .

Q2 : What is the use of file and folder permission?

A : File and folder permissions control access, ensuring only authorized users can view, modify, or execute files and folders, this enhances security and data protection .

## Level intermediate :

Q1 : Write down the steps to give a folder read only permission.

A :

1. Right-click on the folder.
2. Select “Properties.”
3. Go to the “Security” tab.
4. Click “Advanced.”
5. Choose the user or group.
6. Click “Edit.”
7. Adjust permissions, allowing only “Read.”
8. Confirm changes and close dialogs.

Q2 : Write a step to give a file only admin permission.

A :

1. Right-click on the folder.
2. Choose “Properties” from the menu.
3. Navigate to the “Security” tab.
4. Select the user or group.
5. In the “Permissions” box, uncheck “Full Control” and “Modify.”
6. Check “Read” to grant read-only access.
7. Click “Apply” and then “OK” to save changes.

# Topic : Install OS

## Level basic :

Q1 : What is OS ?

A : OS is software that runs computer, managing its hardware and allowing to use applications.

Q2 : What are the types of OS ?

A : Windows, Linux, Mac etc.

# Topic : Clean install

## Level basic :

Q1 : What is clean install ?

A : Clean install is when we install OS on computer’s any storage device by erasing all existing data and applications . It starts completely in fresh environment .

## Level intermediate :

Q1 : What is the process for clean install ?

A : Clean install involves: backup, create bootable media, install OS, partition/format, enter key/settings, complete installation, install drivers/apps, and restore data.

Q2 : what are the benefits of clean install?

A : Benefits of a clean install: improved performance, resolves issues, removes malware, increased stability, ensures compatibility, reclaims storage, allows customization.

# Topic: Upgrade installation

## Level basic :

Q1 : What is upgrade installation?

A : Installing a newer version of an operating system while retaining existing files, settings, and applications is called upgrade installation .

Q2 : What is the benefit of upgrade installation?

A : Upgrade installation keeps your data, saves time, maintains settings, can be cost-efficient, and allows continued use of existing software.

## Level intermediate :

Q1 : Write down the steps of upgrade installation.

A :

1. Compatibility Check
2. Backup Data
3. Download Upgrade
4. Run Installer
5. Follow Prompts
6. Customize Settings
7. Wait for Completion
8. Verify and Restore
9. Post-Upgrade Checks

# Topic: Partition & Formatting

## Level basic :

Q1 : What is partitioning?

A : Partitioning is the process of dividing a hard drive into sections or partitions, each functioning as a separate unit within the drive.

Q2 : What is partition?

A : A partition is a section on a storage drive, considered as an individual Hard disk.

Q3 : What is format?

A : Format is preparing a storage device (like a hard drive) so the computer can use it to save files by organizing it properly.

# Topic: Transferring Files

## Level basic :

Q1 : What is transferring Files?

A : Transferring files means moving or copying data from one location, such as one drive or device, to another.

Q2 : What are the ways of transferring files?

A : USB Transfer, Network Transfer, Bluetooth Transfer etc.

## Level intermediate :

Q1 : How do we transfer files from one system to another ?

A : Transfer files via USB, network share, external storage, file transfer protocols, or email.

Q2 : Types of file transferring media.

A : USB flash drives, external hard disks, Bluetooth sharing, via network etc.

# Topic: Administrative tools

## Level basic :

Q1 : What are administrative tools?

A : Administrative tools are software applications , designed to manage and configure various types of a computer system or network.

Q2 : What is the use of administrative tools?

A : Administrative tools are used to configure settings, monitor performance, troubleshoot issues, manage users, and enhance security in computer systems.

## Level intermediate :

Q1 : List out the administrative tools.

A : Control Panel, Task Event Viewer, Device Manager, Computer Management, Disk Management, Group Policy Editor, System Configuration, PowerShell etc.

Q2 : What is disk management tools ?

A : Disk Management is a tool to manage storage on computer, like creating or formatting partitions.

# Topic: Windows Feature

## Level basic :

Q1 : What is windows features?

A : Windows Features are extra functionalities in Windows that you can add or remove to customize your system.

## Level intermediate :

Q1 : List out the windows features.

A : Hyper-V, internet information service, Telnet client, Media features, Print and document service, windows power shell etc.

Q2 : What is the use of IIS?

A : IIS is a web server in Windows used to host websites and web applications, supporting web development and managing security.

# Topic: Backup & Restore

## Level basic :

Q1 : What is backup?

A : Backup is the process of creating a copy or duplicate of data to prevent loss in case of accidental deletion, hardware failure, or other unforeseen events.

Q2 : What is Restore?

A : Restore is the process of recovering and returning data from a backup to its original location or a different location after it has been lost, damaged, or deleted.

Q3 : What is the need of backup ?

A : Backup is essential for preventing data loss, recovering after disasters, ensuring security, maintaining continuity, and providing peace of mind.

## Level intermediate :

Q1 : What are the tools of backup?

A : Windows Backup (Windows OS), Time Machine (macOS), resync (Linux/Unix) etc.

Q2 : How do we restore?

A : Locate Backup, Access Restore Options, Select Data, Choose Destination, Initiate Restore, Verify Data.

Q3 : How to create a restore point?

A :

1. Open System Properties
2. Access System Protection
3. Create Restore Point
4. Name the Restore Point
5. Finish

# Topic: Disk Management

## Level basic :

Q1 : What is Disk management?

A : Disk Management is a tool in Windows used to manage storage devices connected to a computer.

Q2 : What is the use of disk management?

A : Disk management helps in creating, deleting, formatting, and resizing partitions on hard drives or other storage media.

Q3 : What are the merits of Disk management tool?

A :

1. Partition Control
2. File System Formatting
3. Drive Letter Assignment
4. Volume Mount Points
5. Device Initialization

## Level intermediate :

Q1 : Where can we find the disk management tool?

A :

1. Right-click on "This PC"
2. Select "Manage"
3. Go to "Storage" > "Disk Management"

Q2 : List out the operations we can do with disk management tool.

A : Create partition , delete partition , format partition, shrink partition , extend partition

# Topic: Physical security

## Level basic :

Q1 : Why physical security needed?

A: Physical security is necessary to protect people and assets from theft, damage, or unauthorized access.

Q2 : What is physical security?

A: Keeping the actual hardware and data centers safe from theft, damage, or unauthorized access is called physical security .

## Level intermediate :

Q1 : List out the ways of physical security.

A: Access control, Surveillance cameras, Lighting, Security guards, Intrusion detection, Environmental controls, Biometric security, Security signage, Visitor management etc.

Q2 : How to protect system from malfunctioning due to electrical fluctuation?

A: To protect system from malfunctioning , we can use surge protectors, UPS for temporary power, voltage regulators for stable voltage, isolate critical systems etc.

# Topic: Firewall settings

## Level basic :

Q1 : What is firewall?

A : A firewall is like a digital security guard for your computer or network. It decides what data can enter or leave based on predetermined rules, protecting against unauthorized access and cyber threats.

Q2 : Why is firewall needed?

A: A firewall is needed to block unauthorized access, filter data traffic, protect against cyber threats, secure sensitive information, ensure privacy, and establish network security policies, reducing the risk of attacks.

## Level intermediate :

Q1 : What are the features of firewall?

A:

1. Access Control: Regulates traffic.
2. Packet Filtering: Examines data packets.
3. Stateful Inspection: Monitors active connections.
4. Proxying: Intermediary for user requests.
5. Logging: Records network activity.
6. Alerts: Notifies of security issues.

Q2 : Describe types of firewall .

A : Hardware Firewall, Software Firewall, Cloud Firewall etc.