**Module 2 {Installation and Maintenance of Hardware and Its components}**

**Topic: User Management**

Assignment Level Basic

* **What is user management?**

**Ans- devices, software, and services.**

* **Why is user management needed?**

**Ans- It enables administrators to effectively manage users and their accounts,**

**Assignment level intermediate:**

* **Where can we access the user management?**

**Ans- User management is an organizational function that enables users to access and control digital assets, such as applications, devices, networks, and cloud services. Organizations are now exploring even more advanced solutions.**

* **What are the features of user management**

**Ans- the administration of giving individual users within a system access to the tools they need at the right time.**

Assignment level Advance:

* **Do a practical to create a user from user management**

**Ans- Done**

* **Do a practical to change the password of the administrator from the user management tool.**

**Ans-Done**

**Topic: File and Folder Permission**

**Assignment Level Basic:**

* **What is file folder permission?**

**Ans- There are three user types on a Linux system viz. User, Group and Other. Linux divides the file permissions into read, write and execute denoted by r,w, and x.**

* What is the use of file and folder permission?

**Ans-If your files don't have the best possible permissions in place, it's easier for hackers to intrude on your files and your site.**

**Assignment level Intermediate:**

* **wirte down the steps to give a folder read only permission.**

**Ans-Right-click the file or folder you see in read-only mode and select Properties. In the Properties window, click the Security tab. Choose your username from the available options. Check the Permissions for Users section after selecting your account.**

* **Write a step to give a file only admin permission.**

**Ans-To give the owner all permissions and world execute you would type chmod 701 [filename]. To give the owner all permissions and world read and execute you would type chmod 705 [filename].**

**Assignment level Advance:**

* **Do a practical to give the folder permission of read only in network.**

**Ans-Dane**

* **Do a practical to change the ownership of the folder and the sub folders in it.**

**Ans-Done**

**Topic: Install OS**

**Assignment Level Basic**

* **What is OS?**

**Ans-An operating system (OS) is the program that, after being initially loaded into the computer by a boot program, manages all of the other application programs in a computer.**

* **What are the types of OS?**

**Ans-Types of Operating Systems**

**Batch Operating System.**

**Multi-Programming System.**

**Multi-Processing System.**

**Time-Sharing Operating System.**

**Assignment Level Intermediate**

* **Do a practical to create bootable pendrive for kali Linux**

**Ans- Done**

**2.Do a practical to create a bootable pendrive for windows 7**

**Ans-Done**

* **Do pendrive for creating a pendrive for mac os Mojave with unibeast.**

**Ans- Step 1: Get macOS installer files. As we said already, how you get the installation files will depend on the version of macOS you are running currently and the version you want the installer for. ...**

**2: Create a bootable installer for macOS. ...**

**3: Use the USB installer to update your Mac.**

**Assignment level Advance:**

* **Do a practical to install Kali Linux**

**Ans-done**

* **Do a practical to install windows 10**

**Ans-done**

* **Do a practical to install Mac os X**

**Ans- Done**

**Topic: Clean Install**

**Assignment Level Basic**

* **What is clean install?**

**Ans- A clean install is an installation of an operating system on a computer where the hard drive is formatted and completely erased.**

**Assignment Level Intermediate**

* **What is the process for clean install?**

**Ans- A clean install is an installation of an operating system on a computer where the hard drive is formatted and completely erased. With a clean install, you can start over with a new Windows OS.**

* **what are the benefits of clean install?**

**Ans-allows you to start over and removes any bloatware and trial software that might have been pre-installed on your system.**

**Assignment level Advance:**

* **Do a clean installation of windows XP**

**Ans- Create a backup, boot from the Windows XP CD, press Enter, accept the terms, opt to install a fresh copy, and delete the current partition.**

* **Do a clean installation of windows 8**

**Ans- Insert the Windows 8 DVD or USB drive and restart your computer Watch out for a “Press any key to boot…” message and press a key Select your preferences, i.e. language and time, and then press**

**Topic: Upgrade installation**

**Assignment level basic**

**1.What is upgrade installation?**

**Ans- An upgrade installation is a process of installing a newer version of the Windows operating system to replace the existing version.**

**2.What is the benefit of upgrade installation?**

**Ans- Benefits of Regularly Upgrading Your Operating System (OS)**

**I software is prone to bugs, and Improved security. All operating systems are no exception Access latest features Better compatibility. ... Reduced cos Vendor supIncreased productivity and efficiency.**

**Assignment level intermediate:**

* **Write down the steps of upgrade installation.**

**Ans-Upgrading the Windows Operating System:**

* **Step 1: Select the Operating System to be Minsolent into the computer (Window XP, Window Vista, Window 7, Window 8 & Window 10).**
* **Step 2: Create the Bootable Drive (Pen Drive & CD & DVD)**
* **Step 3: Insert the Bootable Drive into the PC.**
* **Step 4: Restart the System.**

**Assignment level advance.**

* **Do a practical to upgrade from windows 8 to windows 10.**

**Ans-Log into your Windows 8.1 PC and head to Microsoft's Download Windows 10 website. Click the Download Now button to download the Windows 10 installation media. Double-click the download MediaCreationTool21H2.exe to install the program.**

**Topic: Partition & Formatting**

**Assignment level Basic**

* **What is partitioning?**

**Ans-Partitioning is a way of splitting numbers into smaller parts to make them easier to work with..**

* **What is partition?**

**Ans-A partition is a logical division of a hard disk that is treated as a separate unit by operating systems (OSes) and file systems. The OSes and file systems can manage information on each partition as if it were a distinct hard drive.**

* **What is format?**

**Ans-Definition and Usage. The format() method formats the specified value(s) and insert them inside the string's placeholder. The placeholder is defined using curly brackets: {}.**

**Assignment level Intermediate:**

* **Do a Practical of mbr partition.**

**Ans-Done**

* **Do a Practical of gpt partition**

**Ans-Done**

**Assignment level Advance**

* **Do a practical using cmd.**

**Ans-Done**

* **covert a partition to gpt by cmd.**

**To complete the disk conversion by using Disk Management, follow these steps.**

* **Back up or move the data on the MBR disk prior to conversion.**
* **Delete all partitions and volumes on the MBR disk. ...**
* **Select and hold (or right-click) the MBR disk to convert to the GPT format, and select Convert to GPT Disk.**
* Format a partition using cmd.

**Ans-. Or you can click “Install now” in the above step 3 to enter the screen of “Install Windows” where you can select C (primary) drive and click “Format” to format C drive.**

**Topic: Transferring**

**1.What is transferring Files?**

**Ans-File transfer refers to the exchange of data files between computer systems. According to Techopedia:**

**2.What are the ways of transferring files?**

**Ans-way of transferring files**

**Share via LAN or Wi-Fi. For computers that are close to each other,**

**Use a transmission cable. ...**

**Manually connect HDD or SSD.**

**Assignment level Intermediate:**

* **How do we transfer files from one system to another?**

**Ans-You can use an external storage device such as a USB drive, SD card, or external hard drive to help you move all your favorite files off a Windows 7 PC and onto a Windows 10 PC.**

* **Types of file transferring media.**

**Ans-HTTP. HTTP or Hypertext Transfer Protocol) is an extensively used protocol for transferring business files. ...**

**Assignment level Advanced:**

* **Do a practical to transfer files from one system to another via network.**

**Ans-Done**

* **DO a practical to transfer data from one hard disk to another.**

**Ans-Done**

**Topic: Administrative tools**

**Assignment Level Basic**

* **WWhat are administrative tools?**

**Ans-How to access the admin tools? To access the Windows 10 admin tools from the Control Panel, open 'Control Panel', go to the 'System and Security' section and click on the 'Administrative Tools'.**

* **What is the use of administrative tools?**

**Ans-Administrative Tools. The Administrative Tools section includes the following options: Free up disk space, Defragment your hard drive, Create and format hard disk partitions, View event logs, and Schedule tasks.**

**Assignment level Intermediate:**

* **List out the administrative tools.**

**Ans- Component Services.**

* **Computer Management.**
* **Defragment and Optimize Drives.**

**2.What is disk management tools.**

**Ans-Disk management tools are utility software that is used to manage data on disk by performing various functions on it.**

**Assignment Level Advanced**

* **Do a practical to delete a driver and reinstall it from administrative tools**

**Ans-**Done

* **Do a practical to delete a partition and again create it with administrative tool**

**Ans-done**

* **Do a practical to create user with administrative tool.**

**Ans-Done**

**Topic: Windows Feature.**

**Assignment Level Base**

* **What is windows features?**

**Ans- start menu, task manager, taskbar, Cortana, file explorer, MS Paint, Browser, control panel etc. The advantages of the windows Operating system are- the majority of the users use windows, it has programming and gaming support, clean Files**

**Assignment level Intermediate**

* **List out the windows features.**

**Features provided by the Windows Operating System**

* **Provides an efficient speed.**
* **Allows disk access as well as file systems.**
* **Program execution is done in a smooth way.**
* **Protected and supervisor mode is always there.**
* **Memory Management is supported to allow multiprogramming.**
* **Provides regular updates to ease the usage.**
* **What is the use of IIS?**

**Ans-Internet Information Services, also known as IIS, is a Microsoft web server that runs on Windows operating system and is used to exchange static and dynamic web content with internet users.**

**Assignment level Advance:**

* **Do a practical to re install IIS with windows feature.**

**Ans-done**

* **Do a practical to install dotnet framework 3.5 with Windows feature.**

**Ans-done**

* **Do a practical to disable internet explorer in windows feature.**

**Ans-Done**

**Topic: Backup & Restore**

**Assignment level Basic:**

* **What is backup?**

**Ans-Backup refers to the copying of physical or virtual files or databases to a secondary location for preservation in case of equipment failure or catastrophe.**

* **What is Restore?**

**Ans-We will restore her to health but it may take time. He said the ousted president must be restored to power. His country desperately needs Western aid to restore its ailing economy. The following day their horses and goods were restored to**

* **What is the need of backup**

**Ans-Making backups of collected data is critically important in data management. Backups protect against human errors, hardware failure, virus attacks, power failure, and natural disasters. Backups can help save time and money if these failures occur.**

**Assignment level Intermediate.**

* **What are the tools of backup?**

**ANS- Backup software  a computer program that makes a copy of your files and folders or your complete system.**

* **How do we restore?**

**Ans-Backup and restore refers to technologies and practices for making periodic copies of data and applications to a separate.**

* **How to create a restore point?**

**Ans-In the search box on the taskbar, type Create a restore point, and select it from the list of results.**

**On the System Protection tab in System Properties, select Create**

**Assignment level Advance:**

* **Do a practical to create restore point.**

**Ans-done**

* **Do a practical to restore from restore point.**

**Ans-Done**

* **Do a practical to take backup from another system.**

**Ans-done**

* **Do a practical to take backup backup with a recuva backup tool.**

**Ans-Done**

**Topic: Disk Management**

**Assignment level Basic:**

* **What is Disk management?**

**Ans-Disk Management is a tool in an operating system that helps users to manage and organize the hard disk and other storage devices.**

**2.What is the use of disk management?**

**Ans-to create, delete, format disk partitions, and much more.**

**3.What are the merits of Disk management tool?**

**Ans- organizing the space on a computer's hard drive and allowing proper access to the data stored there.**

**Assignment level Intermediate**

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* **Where can we find the disk management tool**

**Ans-right-click (or long-press) the Start button and select Disk Management.**

* **List out the operations we can do with disk management tool**

**AnsPartitioning of the disk.**

**Formatting the disk.**

**Changing disk's name.**

**Shrinking a disk partition.**

**Assignment level Advance:**

* **Do a practical to create a new partition with disk management tool.**

**Ans-done**

* **Do a practical to convert from MBR to gpt from disk management tool**

**Ans-done**

* **Do a practical to create new partition from existing partition.**

**Ans-Done**

**Topic: Device Management**

**Assignment level Basic:**

* **What is Device Management?**

**Ans-Device management enables organizations to administer and maintain devices, includinvirtualmachines, physical computers, mobile devices, and IoT devices.**

**2. What is the need of device management?**

**Ans-manages all the hardware or virtual devices of a computer or PC.**

**3.What are the benefits of Device management?**

**Ans- Data collection of device logs and events can help detect and resolve issues before they become major problems and prevent device failures or malfunctions.**

**Assignment level Intermediate:**

* **Where can we access device management?**

**Ans-Press the Windows key + R on your keyboard to open the Run dialog box. Then, type "devmgmt. msc" in the box and press Enter.**

**2. List out the devices connected to the device management.**

**Ans- physical objects that can connect with each other and other systems via the internet.**

**Assignment level Advance:**

**1. Do a practical to add a device with device management tool.**

**Ans-done**

* **Do a practical to delete a driver from the device management tool.**

**Ans-Done**

**Topic: Physical security**

**Assignment Level Basic**

* **Why physical security needed?**

**Ans- to protect people, property, and physical assets from any action or event that could lead to loss or damage.**

* **what is physical security?**

**Physical security refers to the protection of building sites and equipment**

**Assignment Level Intermediate**

* **list out the ways of physical security.**

**ANS.Items such as fences, gates, walls and doors all act as physical deterrents to criminal entry.**

* **How to protect system from malfunctioning due to electrical fluctuation?**

**ANS. Use power strips or surge-protected protectors. During a power surge, these devices help in reducing and rerouting excess electricity,**

**Topic: Firewall settings**

**Assignment level basic:**

* **What is firewall?**

**Ans-Network security device that monitors incoming and outgoing network traffic and decides whether to allow or block specific traffic based on a defined set of security rules**

* **Why is firewall needed?**

**Ans-What do firewalls do? Firewalls provide protection against outside cyber attackers by shielding your computer or network from malicious or unnecessary network traffic.**

**Assignment level Intermediate:**

* **What are the features of firewall?**

**Ans-It monitors and controls incoming and outgoing network traffic.**

* **Describe types of firewall**

**Ans-A firewall can either be software or hardware. Software firewalls are programs installed on each computer,**

**Assignment level advance:**

* **Do a practical to allow anydesk through firewall.**

**Ans-done**

* **do a practical to turn off the services of firewall.**

**Ans-done**

* **Do a practical to block ip messenger to access the network**

**Ans-done**