Bhandarkars' Arts And Science College,Kundapura
Department Of Computer Science
Hardware And PC Maintenance-Elective(BCACE-236)
Question Bank

Unit I

2 Marks Questions

1. What do you mean by Complete PC?

A typical PC is more than one device, and you need all of the parts (or at least most) to make the PC work. The most important part of the PC is the one that all of the other parts connect to, called the system unit. **All of the processing and storage takes place in the system unit.** All of the other parts of the PC the printer, the keyboard, the monitor.

2. Write a note on Monitor and sound device.

Monitor : A monitor connects to the video connector on the system unit. usually there are two types of video connectors: the older, 15-pin female DB **Video Graphics Array (VGA)** connector or the unique **digital visual interface (DVI)** connector. VGA connectors are colored blue, whereas DVI connectors Figure are white.

Sound Device: The sound device in a computer performs two functions. First, it takes digital information and turns it into sound, outputting the sound through speakers. Second, it takes sound that is input through a microphone or some other audio source and turns it into digital data.

3. What are the standard sets of External Connections?

Standard sets of External Connections are *Monitor, Keyboard, Mouse, Speakers, Printer*

4. Write a note about USB Connectors.

A universal serial bus (**USB**) **connector** is a **connector** between a computer and a peripheral device such as a printer, monitor, scanner, mouse or keyboard.

Universal serial bus provides the most common general-purpose connection for PCs.

5. What is Web Servers?

A remote computer called a **Web server** stores the files that make up a Web site. The Web server uses server programs to store and share the data. So the role of the Web server is to provide access to Web sites.

Two popular Web server programs are Apache HTTP Server and Microsoft Internet Information Services (IIS).

6. What are NIC cards?

A NIC (Network Interface Card) is also called as network card, network adapter and LAN Adapter is a piece of computer hardware designed to allow computers to communicate over a computer network. It allows users to connect to each other either through wired or wireless network.

7. What is crimping and mention its types.

The process of inserting a Cat5 cable into a RJ45 jack and fixing them firmly is called Crimping.

There are Two type of cable crimping available

1. Straight cable coloring order.   2. Cross-cable .

8. Write the Steps to identify MAC Address.

To identify MAC Address of a system.

• Double click on the network icon that is available on the tool-bar. Click on the Support tab,

• Click on Details button,

MAC Address is also called as the Physical/LAN Address. When the details

button is clicked, the MAC address of your system is obtained. Refer the

figure available below.

An alternate way of finding the MAC Address is as follows,

• Click Start-> Run (or press Windows button + r),

• Type "cmd" and click on OK to open the command prompt.

• Type ipconfig/all to obtain the MAC addresses of that system.

9. Write the Steps to create Local User Account.

Create a local user account

1. Select **Start** > **Settings** > **Accounts** and then select **Family & other users.** (In some editions of Windows you'll see **Other users**.)

2. Select **Add someone else to this PC**.

3. Select **I don't have this person's sign-in information**, and on the next page, select **Add a user without a Microsoft account**.

4. Enter a user name, password, password hint or choose security questions, and then select **Next**.

10. What is ARP Tables, Which command you will use inorder to display ARP Table.

ARP is nothing but Address Resolution Protocol and its job is to match MAC address to IP address .
Run **arp - a** in the command prompt, which will report on all the information that it has stored on the ARP table during the usage of the network for that system.

11. What is NetStat Command, Write its syntax.
NetStat Command: Monitors Internet connections on your computer. It shows the information on all active TCP and UDP connections, local and remote ports, connection states and the owning process

12. What is the use of IPConfig Command?
Shows network, adapters and interfaces configuration. IPConfig (Internet Protocol Configuration) allows you to renew DHCP configuration or send the command to DHCP server to release and discard the IP address configuration. This tool is very useful on computers that are configured to obtain an IP address automatically.

13. What is the use of Net Command?
The net command is used to view the network or send messages or network settings, etc.
Some of the Net commands are

Net Send: Sends messages to other users, computers, or messaging names on the network.

Net View: This command is used to view the systems that are available in the network.

14. What is EDB?

The EDB(External Data Bus) is the way, the CPU communicates with the outside world Instead of light bulbs the EDB is made up of tiny wires.

15. What are Registers?

General purpose registers are used to store temporary data within the Microprocessor.

General purpose registers are AX,BX,CX,DX registers.

16.What is Clock Speed and Clock Wire.

Clock Speed: The maximum number of clock cycles that a CPU can handle in a given period of time is referred to as its **clock speed**. The clock speed is the fastest speed at which a CPU can operate, determined by the CPU manufacturer.

Clock Wire: The bell on a real CPU is a special wire called the **clock wire** . A charge on the CLK wire tells the CPU that another piece of information is waiting to be processed

17. What are the symptoms of Overheating In CPU?

Symptoms of Overheating

1. Too much thermal paste can impede the flow of heat from the CPU to the heat sink and cause the CPU to heat up rapidly. All modern CPUs have built-in fail-safes that tell them to shut down before getting damaged by heat.

2. Not enough thermal paste or thermal paste spread unevenly can cause the CPU to heat up and consequently shut itself down.

3. Failure to connect the fan power to the motherboard can cause the CPU to heat up and shut itself down.

18.What is RAM, Mention its Types.

Random access memory (RAM) stores programs and data currently being used by the CPU. The maximum amount of programs and data that a piece of RAM can store is measured in units called bytes.

Types of RAM

- SDRAM
- RDRAM

19.What is BIOS?

CPU needs some sort of support programming loaded into memory that teaches it about a particular device. This programming is called **Basic Input/output services (BIOS).** The programs dedicated to enabling the CPU to communicate with devices are called services.

20.What is CMOS And RTC?

CMOS:

ROM it needs a place to store all its settings so they don't have to be re-entered every time you boo t your computer. That place is a tiny bit of RAM hooked up to a small battery to keep it working with the PC off. We call this memory the **complementary metal-oxide semiconductor (CMOS)** chip.

RTC: Stands for Real Time clock ,here you don't have to keep setting the anytime on every boot.

21.Expand BIOS,CMOS,RTC.

BIOS-Basic Input Output Services

CMOS- Complementary Metal-Oxide Semiconductor
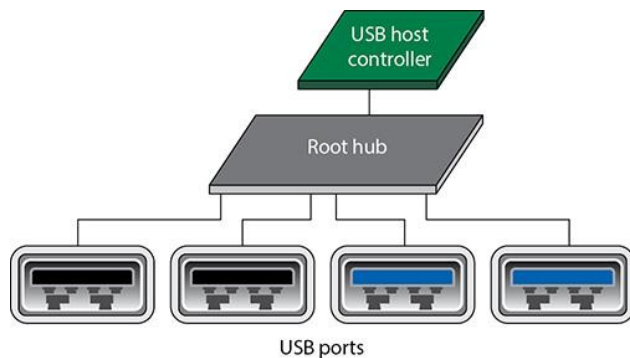
RTC- Real Time Clock

22. What is parallel and Serial ATA

Parallel ATA (PATA): The older **parallel ATA (PATA)** drives send data in parallel, on a wide 40- or 80-wire data cable called a ribbon cable.

Serial ATA (SATA): drives that send data in serial, using only one wire for data transfers.

23. What is USB Host Controller?

The **USB host controller**, an integrated circuit that is usually built into the chipset, controls every USB device that connects to it. Inside the host controller is a **USB root hub**: the part of the host controller that makes the physical connection to the USB ports

24. What are POST Cards?

POST cards are simple cards that snap into expansion slots on your system. A small, two- character light-emitting diode (LED) readout on the card indicates which device the POST is currently testing.

25.What is System Lookup and Page fault?

System lockups and page faults in Windows can indicate a problem with RAM**. A system lockup** is when the computer stops functioning.

A **page fault** is a milder error that can be caused by memory issues but not necessarily system RAM problems.
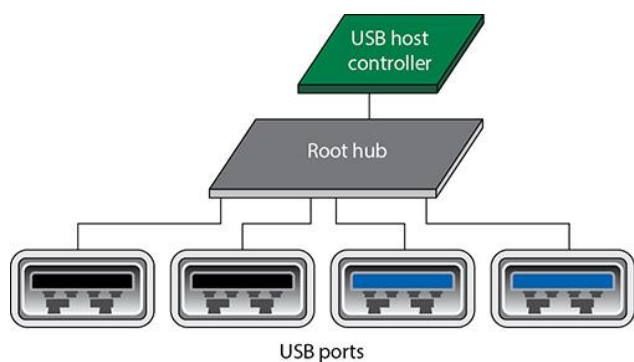
26. What is Auto-detection?

If the controllers are enabled and the drive is properly connected, the drive should appear in CMOS through a process called **autodetection**. Autodetection is a powerful and handy feature that takes almost all the work out of configuring hard drives.

27. What is partition table in Master Boot Record.

Partition table, which describes the number and size of partitions on the disk. MBR partition tables support up to four partitions, The instructions in the master boot record use this table to determine which partition contains the active operating system.

28. What are USB Root Hub?

USB root hub: the part of the host controller that makes the physical connection to the USB ports. Every USB root hub is really just a bus—similar in many ways to an expansion bus.

29.Expand BSoD,SPoD,NMI

BSoD-Blue Screen of Death

SPoD- Spinning Pinwheel of Death

NMI- Non-Maskable Interrupt

30.What is Device Drivers

Device driver or hardware driver is a group of files that enable one or more hardware devices to communicate with the computer's **operating system**. Without drivers, the computer would not be able to send and receive data correctly to hardware devices

Unit II

2 Marks Questions
1.   What are the different types of Installation?
You can install Windows in several ways. A **clean installation** of an OS involves **installing it onto an empty hard drive or completely replacing an existing installation**.
An **upgrade installation** means **installing an OS on top of an earlier installed version**, thus inheriting all previous hardware and software settings.
2.   What is Multiboot Installation?
Multiboot Installation means your **system has more than one Windows installation and you may choose which installation to use when you boot your computer**.
Every time your computer boots, you'll get a menu asking you which version of Windows you wish to boot.
3.   What is Media Error?
Media Errors
Checking **media** presence **error** on startup means the **computer** is attempting to boot from a source it cannot reach. This may happen when the boot file on the hard disk is missing, corrupted, or when the **computer** attempts to boot from the network and is unable to connect.
4.   What is Graphical Mode Error?
Once the graphical part of the installation begins, errors can come from a number of sources, such as hardware or driver problems. **Failure to detect hardware properly by any version of Windows Setup** can be avoided by simply researching compatibility before hand.
5.   Explain Post Installation Task?
POST INSTALLATION TASKS
Patches, Service Packs, and Updates
The parts (programming code) of OS were created by different people, Although **each component is tested as much as possible, and the assembled OS is also tested, it's not possible to test for every possible combination of events. Sometimes a piece is simply found to be defective. The fix for such a problem is a corrective program called a patch.**

In the past, Microsoft provided patches for individual problems. They also accumulated patches up to some sort of critical mass and then bundled them

together as a service pack, Today, Windows simply sends individual updates to your system via the Internet.

Immediately after installing Windows, Windows should install the latest updates on the computer. The easiest way to accomplish this task it to turn on *Windows Update*.

6. What are Patches and Service packs.
Patches, Service Packs

Like an airliner, the parts (programming code) of your OS were created by different people, and some parts may even have been contracted out. Although **each component is tested as much as possible, and the assembled OS is also tested, it's not possible to test for every possible combination of events. Sometimes a piece is simply found to be defective. The fix for such a problem is a corrective program called a patch.**

In the past, Microsoft provided patches for individual problems. They also accumulated patches up to some sort of critical mass and then bundled them together as a service pack, but Windows 7 was the last version to get one. Today, Windows simply sends individual updates to your system via the Internet.

7. What is windows Sidebar?

Windows Vista comes with a GUI feature called the Windows Sidebar, a tool that sits on one side of the desktop and enables small helper applications- called Microsoft Gadgets- to run.

You can display a clock, for example, or a dynamic weather update

8. List Windows Key Shortcuts.
Windows Key Shortcuts

These shortcuts use the special Windows key:

WINDOWS KEY Start menu

WINDOWS KEY-D show desktop

WINDOWS KEY-E Windows Explorer

WINDOWS KEY-L Lock the computer

WINDOWS KEY-TAB Cycle through taskbar buttons (or Flip 3D with Windows Aero in Vista/7)

WINDOWS KEY-PAUSE/BREAK Open the System Properties dialog box

9. What do you mean by Device Manager?

With Device Manager, you can examine and configure all of the hardware and drivers in a Windows PC.

The method to open devise manager is to right-click My Computer/Computer and select Manage. This opens a window called Computer Management, where you see Device Manager listed on the left side of the screen, under System Tools. Just click on Device Manager and it opens.

10. What do you mean by Activation in Windows?

Activation is a process where your computer sends Microsoft aunique code generated on your machine based on the Install CD/DVD's product key and a number of hardware features, such as the amount of RAM, the CPU processor model, and other ones and zeros in your PC.

Normally, activation is done at install time, but if you choose not to activate at install you'll need to use the Activate Windows utility.

11. What do you mean by backup in windows?

Backup (Windows XP)

The Backup utility enables you to back up selected files and folders to removable media such as tape drives.

12. What are the different tabs available in Task Manager?

Applications, processes, and services,Performance

13. What is Patch Management?

Patch Management

The process of keeping software updated in a safe and timely fashion is known as **patch management**.

Patch Management fixes vulnerabilities on software and application

14. What do you mean by Registry Maintenance?

Registry Maintenance

The Registry is a huge database that Windows updates every time you add a new application or hardware or make changes to existing applications or hardware. As a result, the Registry tends to be clogged with entries that are no longer valid. These usually don't cause any problems directly, but they can slow down your system.

To clean your Registry, you need to turn to a third-party utility. You can use Registry cleaner programs freeware CCleaner.

15. What is the use of System Information Tool?

System Information

Windows comes with a built-in utility known as the **System Information tool** that collects information about hardware resources, components, and the software environment

As with many other tools, you can access this tool from the Start | Search bar; enter msinfo32.

16. What do you mean by Optimization?

Making Windows better than it was before, such as adding a piece of software or hardware to make something run better, is an *optimization*.

Removing unnecessary programs is an important piece of optimization.

17. How we can Remove Software?

Removing Software

Inorder to remove software Uninstall program option is listed in the application's folder in the Start menu

If an uninstall program is not available, use the **Programs and Features** applet in Control Panel or **Apps & features** in Settings (Windows 10) to remove the software.

select the program you want to remove and click the Uninstall/Change button or Change/Remove button. Windows displays a message warning you that the program will be permanently removed from your PC. If you're certain you want to continue, click Yes.
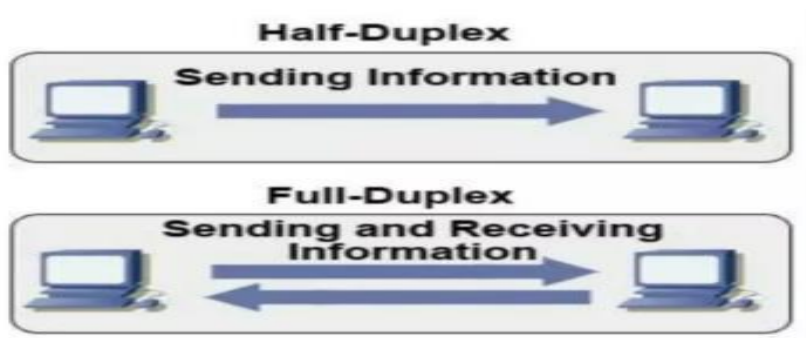
18. What do you mean by System Restore?

The **System Restore** tool enables you to create a **restore point**, a *snapshot* of a computer's configuration at a specific point in time.

If the computer later crashes or has a corrupted OS, you can restore the system to its previous state, specifically *restoring system files and folders*.

19. What are Full-duplex and Half-duplex?

Full-Duplex and Half-Duplex

All modern NICs run in **full-duplex** mode, meaning they can send and receive data at the same time. The vast majority of NICs and switches use a feature called *autosensing* to accommodate very old devices that might attach to the network and need to run in half-duplex mode. **Half-duplex** means that the device can send and receive, but not at the same time.

20. What is Modem?

Modems enable computers to talk to each other via standard commercial telephone lines by converting analog signals to digital signals, and vice versa. The term *modem* is short for modulator/demodulator, a description of transforming the signals.

21. What is dial-up Connection?

A dial-up connection to the Internet requires two pieces to work: hardware to dial the ISP, such as a modem or ISDN terminal adapter; and software to govern the connection, such as Microsoft's **Dial-up Networking (DUN)**. Let's look at the hardware first, and then we'll explore software configuration.

22. What is Malware?

The term **malware** defines any program or code that's designed to do something on a system or network that you don't want done. Malware comes in quite a variety of guises, such as viruses, worms, ransomware, spyware, Trojan horses, keyloggers, and rootkits.

23. What are the different forms of Malware?

Virus ,Worms, **Trojan Horse** , **Keylogger, Rootkit** , **Spyware**

24.Explain   i. Keylogger   ii. Rootkit

Keylogger Keylogger records the user's keystrokes and making that information available to the programmer. You'll find keylogging functions as part of other malware as well.

Rootkit   A **rootkit** is a program that takes advantage of very low-level operating system functions to hide itself from all but the most aggressive of anti-malware tools. Rootkits can strike operating systems, hypervisors, and even firmware

25.Explain i. Replication   ii. Activation.
Virus   A **virus** is a program that has two jobs: to replicate and to activate.
Replication means it makes copies of itself, by injecting itself as extra code added to the end of executable programs, or by hiding out in a drive's boot sector.
Activation is when a virus does something like corrupting data or stealing private information.

26.What are Spyware?
Spyware   Spyware—malicious software, generally installed without your knowledge— can use your computer's resources to run distributed computing applications, capture keystrokes to steal passwords, or worse.

27.What is Character Map?
Character Map
It enables you to copy any Unicode character into the Clipboard.
Word processor doesn't support some of the strange character ,then we need the Character Map inorder to insert Unicode character.
28.What is Disk Defragmenter?
Disk Defragmenter keeps hard drives running efficiently by reorganizing files scattered into pieces on your hard drive into tight, linear complete files.