Topic: The Visible Computer.

1.What is hardware?
=Hardware is we can touch and repairebal part of the computer.

2.What is the purpose of hardware?
=Hardware refers to the external and internal devices and equipment that enable you to perform major functions such as input, output, storage, communication, processing, and more

3.List out two types of hardware?
=Two types of hardware is **1-CPU** and **2- Motherboard**.

4.What is core hardware?
=Core is a small CPU or processor built into a big CPU or CPU socket.

5.Do a practical of identifying hardware?
=Done in lab

Topic: Category of components.

6.What are the category of components in hardware?
=There are five hardware components in a computer system÷**1-**Input, **2-**Processing, **3-**Storage, **4-**Output and **5-**Communication devices.

7.Why category is needed?
=category is help organize & understand hardware components, communication, troubleshoot.

8.Do a practical to identify the components in which category they come.
=Done in lab

Topic: Input Device.

9.What is input device?
=Which data that we enter in computer device that is a input device.

10.Why input device needed?
=An input device, such as a keyboard or mouse, sends information to a computer system. The computer will then display or reproduce that information via one or more output devices. It's therefore essential for computer users to differentiate between input and output devices

11.List out the input device.
=Input device are Keyboard, Mouse,Webcom,Scaner etc.

12.Do a practical to identify input device and describe how it works.
=Done in lab

Topic: Output Device.

13.What are output device?
=Which can we use for get our data that is known as output device.

14.how does output device work?
=The computer processes input and then sends a new signal to the output device.

15.List out the output device.
=Output device are Monitor,Printer,Speaker etc.

16.Do a practical to identify the output device and describe its working process.
=Done in lab

Topic: Motherboard.

17.What is motherboard?
=Motherboard is one of the most essential parts of a computer system.

18.Why it is called motherboard?
=Motherboard a computer na badha parts ne ek sathe cable thi and directly connect Kari rakhe che that's why it is called as motherboard.

19.What it is called if we remove all components from the motherboard?
=Printed circuit board(PCB).

20.Describe types of motherboard.
=1- AT Motherboard
2- ATX Motherboard
3- Micro ATX Motherboard
4- ITX Motherboard.

21.Do a practical by identifying parts of motherboard.
=Done in lab

21.Do a practical by describing the data flow in motherboard.
=Done in lab

22.Do a practical by removing all removable parts from the motherboard.
=Done in lab

Topic: CPU.

23.What is CPU.
=A central processing unit —also called a central processor or main processor—is the most important processor in a given computer.

24.Write the full form of CPU.
=Full form of cpu-central processing unit.

25.What are the types of CPU?
=Single-core CPU.
Dual-core CPU.
Quad-core CPU.
Hexa core processors.
Octa-core processors.
Deca-core processor**.**

26.What do we need to keep the CPU Healthy?
=Reset computer at least once a week, install antivirus software, clean cabinet.

27.Do a practical to remove processor and apply thermal paste in it and install it again.
=Done in lab

28.Do a practical to Identify CPU and its Sockets.
=Done in lab

Topic: Monitor.

29.What is Monitor?
=Monitor is an output device.Monitor can show different types of information.

30.List out the types of monitor.
=i) RGB
ii) CRT Display
iii) Plazma Display
iv) LCD
v) LED

31.Do a practical to identify monitor Technology.
=Done in lab

32.What are the Technologies used in monitor.
=Monitors used a cathode-ray tube (CRT) as the image output technology.

33.Describe how does the crt monitor works.
=CRT and Telelele produce sound when a player catches static electricity emitted from the CRT-TV screen with a Coil-Pick and sends the electric signal to a guitar amplifier.

Topic: system bus.

34.What is system bus?
=A system bus is a facet of computer architecture that transmits and shares data throughout the computer and between devices. It's the primary way for a computer to process information because it connects the main processor to all other internal hardware components of a computer.

35.List out the types of system bus.
=Address bus - carries memory addresses from the processor to other components such as primary storage and input/output devices.
=Data bus - carries the data between the processor and other components. ...
=Control bus - carries control signals from the processor to other components.

36.Describe the working of system bus.
=A system bus is a facet of computer architecture that transmits and share data throughout the computer and between devices.

37.Do a practical to identify the system bus.
=Done in lab

Topic: Chipset.

38.What is chipset
=A collection of integrated circuits which are designed to function together as a unit, especially to perform a particular task within a computer system.

39.What are the types of chipset?
=The Northbridge
The Southbridge.

40.Which chipset does have direct contact with the cpu.
=The northbridge is directly connected to the CPU.

41.Do a practical to identify the chipset
=Done in lab

42.Describe how does the Northbridge chipset work
=The northbridge handles the high-speed communication between the CPU, memory, and graphics card.

Topic:Memory.

43.What is memory?
=Memory is the process of taking in information from the world around us, processing it, storing it and later recalling that information, sometimes many years later.

44.What are the types of memory?
=RAM,ROM,CMOS. Ok

45.Describe memory in detail.
=Memory is the process of taking in information from the world around us, processing it, storing it and later recalling that information, sometimes many years later.

46.What are memory types.
=Working memory, Short term memory, Long term memory.

47.Do a practical to identify memory types.
=Done in lab

48.Do a practical to install memories in system
=Done in lab

49.Do a practical to identify main memory frequencies.
=Done in lab

Topic: System Unit.

50.What is System Unit?
= System unit, in the context of computing, refers to the main part of a personal computer.

51.How does system unit work?
=System unit is to hold all the other components together and protect the sensitive electronic parts from the outside elements.

52.What are the components and system unity?
=Entities the entities,or things, that populate your game or program.Components the data associated with your entities,but organized by the data itself rather than by entity.

53.Do a practical to identify system unit.
=Done in lab

54.Do a practical to assemble and disassemble system unit.
=Done in lab

Topic: BIOS.

55.What is bios.
=One of the most important chip on the motherboard is the BIOS chip.

56.What is the full form of bios.
=The full form of BIOS is the Basic Input Output System.

57.Describe working process of BIOS.
=BIOS is the program a computer's microprocessor uses to start the computer system after it is powered on. It also manages data flow between the computer's operating system (OS) and attached devices, such as the hard disk, video adapter, keyboard, mouse and printer.

58.Do a practical to reset bios when system is on.
=Done in lab

59.Do a practical of Hard resetting the BIOS.
=Done in lab

60.Do a practical of identifying BIOS chip from the motherboard.
=Done in lab

Topic: CMOS.

61.What is CMOS?
=CMOS is an integrated circuit built on a printed circuit board. It is a battery-powered memory chip that effortlessly holds the initialisation data. The BIOS uses this data to turn on the device, i.e., during the bootup process**.**

62.What is the full form of CMOS?
=The full form of CMOS is Complementary Metal-Oxide-Semiconductor.

63.Describe the working process of CMOS.
=CMOS works through an interplay between two transistors - an N-Channel MOSFET and the P-channel MOSFET.

64.Do a practical of identifying cmos.
=Done in lab

65.Do a practical of installing cmos.
=Done in lab

66.How do we know that cmos is not working.
=Jab computer off hota he tab BIOS setting me time or day change ho jata he or galat dikhata he tab CMOS work nahi karta he.

Topic: Boot process.

67.What is Boot Process?
=Boot process is process of switch on the computer and start the operating system.

68.What is the first process of boot?
=Ye pahala kam hai jisame current chaaloo karana hai. yah bios aur prosesar jaise main parts ko electricity ko provide karta he.

69.What is the final stage in the boot process?
=Once the previous steps are complete and the operating system is safely loaded into RAM, the boot process relinquishes control to the OS.

70.Describe the boot process in Linux?
=Linux booting is the process of starting the operating system. It is turning on the hardware power and end at the login screen. There are two different types of booting**.**

71.Describe about working with the grub bootloader.
=GRUB provides a boot menu and makes it easy for multi-OS system users to choose which operating system to run.

72.Describe working process of boot loader.
=The bootloader mainly works in initializing OBC hardware, receiving boot commands from the ground, and making the operating system and application of the OBC run well.

Topic: SMPS.

73.What is SMPS?
=SMPS is a part of hardware.SMPS full form is
Switch-Mode Power Supply.

74.What is the process of SMPS?
=SMPS works to send power to all parts of computer without monitor.

75.DO a practical to install SMPS.
=Done in lab.

76.How many sata connectors are there in normal smps?
=Two connectors.

77.Do a practical to troubleshoot a smps without plugging it to the system.
=Done in lab.

78.How many pins does atx power connector have?
=ATX power connector has a 20 pins.

Topic: RAM.

79.What is RAM?
=RAM is random-access memory.RAM me apna computer ka data save hota he.

80.What is the full form of RAM?
=RANDOM ACCESS MEMORY.

81.What are the types of ram?
=(1)Dynamic RAM and (2)Static RAM.

82.Do a practical to identify RAM.
=Done in lab.

83.Do a practical to identify ram and install it in a proper system.
=Done in lab.

Topic: Device and cable.

84.What are the types of devices?
=1-Input Device
2-Output Device
3-Processing Device
4-Storage Device.

85.What are the types of cables.
=coaxial cables, twisted pairs, optical fibers, patch cables, power cables, data cables.

86.What cables are used to connect printer?
=USB 2.0 A/B ye cable printer ko contact karne me use hota he.

87.What was the first cable founded by Apple for data transfer?
=The first cable founded by apple for data transfer is 6 pin fire wire connector.

88.Do a practical to identify the sata cables.
=Done in lab.

89.Do a practical to identify and install the cables in the system.
=Done in lab.

Topic: Expansion card and slots.

90.Why expansion card needed?
=Extra card add karne ke liye.

91.Why expansion slots needed?
=Extra function ko add karne ke liya.

92.What are the types of expansion card?
=Sound cards.
Video cards.
Network cards.
Serial and parallel cards.
USB cards.
FireWire cards.
Storage cards.

93.What are the types of expansion cards?
=Sound cards.
Video cards.
Network cards.
Serial and parallel cards.
USB cards.
FireWire cards.
Storage cards

94.Do a practical to identify the types of expansion slots.
=Done in lab.

95.Do a practical to install the Graphics card.
=Done in lab.

96.Do a practical to install LAN card.
=Done in lab.

Topic: I/O Ports.

97.What is I/O ports?
= An I/O port is a socket on a computer that a cable is plugged into.

98.List out the I/O ports available.
=Serial.
Parallel and Universal Serial Bus.
Infrared Port.

Bluetooth Port.
Firewire.

99.Do a practical to identify the I/O ports.
=Done in lab.

Topic: BIOS & CMOS.

100.What is BIOS?
=BIOS is the program a computer's microprocessor uses to start the computer system after it is powered on.

101.What is CMOS?
=CMOS is an on-board, battery powered semiconductor chip inside computers that stores information.

102.What is the role of BIOS in i/o?
=BIOS role in input and output to start the computer system after it is powered on.

103.What is the role of i/o in CMOS?
=CMOS is to maintain time and store some settings of computer hardware in a volatile memory.

104.Do a practical to reset BIOS.
=Done in lab.

105.Do a practical to remove cmos.
=Done in lab.

Topic: Laptop & storage.

106.What is laptop?
=Leptop is a battery- or AC-powered personal computer (PC) smaller than a briefcase.

107.Why laptop is used widely now a days?
=Most laptops are designed to have all of the functionality of a desktop computer that's why leptop is used widely now a days.

108.Describe the working process of laptop?

=Laptops combine all of the input and output capabilities and components of a desktop computer, including its display screen, keyboard, speakers, data storage, disc drives, and pointing devices with a processor and operating system into a smaller device.

109.What is storage?
=Storage is a process through which digital data is saved within a data storage device by means of computing technology.

110.List out the types of storage.
=RAM,
ROM,
HARD DISC,
SSD,
Sd Card.

111.Do a practical to identify types of storage.
=Done in lab.

112.Do a practical to disassemble and assemble the storage.
=Done in lab.

113.Do a practical to install the storage devices.
=Done in lab.

Topic: Printer.

114.What is printer?
=Printer is a device that prints documents and images onto paper or other materials.

115.Why is printer needed?
=that is used to get a hard copy of a document or a file.

116.Describe the working process of printer.
=A printer works by sending electronic signals from the computer to the printer's control board.The print head or toner cartridge prints the document or image onto paper.

117.What are the types of printer.

=inkjet printers, laser printers, thermal printers, and 3D printers.

118.Do a practical to install the printer
=Done in lab.

119.Do a practical to Troubleshoot the improper printing.
=Done in lab.

Topic: Storage devices.

120.What is storage device?
=A storage device is a piece of hardware that is primarily used for storing data.

121.Why we need storage device?
=Storage device is allows you to store and retrieve digital information on your computer.

122.List out the types of storage devices.
=RAM,
ROM,
Pen drive,
Hard disc,
SSD,
Sd card.

123.Describe the working process of storage devices.
=Data is read and written using magnetic heads that move over the spinning disks' surface.

124.Do a practical to Remove storage devices and reinstall it and make a gpt disk.

=Done in lab.

Topic: ATA.

125.What is ATA?

=ATA is a standard physical interface for connecting storage devices within a computer.

126.Describe working of ATA.

=ATA providing a standardized interface for storage devices.

127.Do a practical to identify and install ATA cables.

=Done in lab.

Topic: SATA.

128.What is SATA?

=SATA is a computer bus interface that connects host bus adapters to mass storage devices such as hard disk Olid-state drives.

129.Describe the working of SATA.

=SATA defines how data is transferred between a computer's motherboard and mass storage devices.

130.Do a practical to identify sata.

=Done in lab.

131.Do a practical to install SATA.

=Done in lab.

132.Where does SATA is used.

=SATA cables are used inside a computer's case.

Topic: SCSI.

133.What is SCSI?

=SCSI is Small Computer System Interface.

134.WHy SCSI needed?

=SCSI is used to connect and communicate between computers and peripheral devices.

135.What is the rpm of SCSI?
=SCSI drives come in 10,000 or 15,000 rpm.

136.Do a Practical to install scsi.
=Done in lab.

Topic: Laptop.

137.What is laptop?
=Leptop is a battery- or AC-powered personal computer smaller than a briefcase.

138.What are the types of laptop?
=Gaming laptop, MacBook, Netbook.

139.Diffrent names of laptop.
=Netbook,Ultrabook,Notebook,Computer.

140.What are the parts of laptop?
=display screen, keyboard, base panel, top panel, RAM, hard disk, battery,speaker, optical drive.

141.Do a practical of identifying parts of the laptop.
=Done in lab.

142.Do a practical to disassemble the laptop.
=Done in lab.

143.Do a practical to change the RAM in the laptop.
=Done in lab.

TOPIC: PRINTER.

144.WHAT IS PRINTER?
=Printer is a device that prints documents and images onto paper or other materials.

145.IS IT A INPUT DEVICE OR OUTPUT DEVICE?
=Printer is an output device.

146.Describe the types of printer.
=inkjet printers, laser printers, thermal printers, and 3D printers.

147.Describe inkjet printer.
=inkjet printer is a computer peripheral that produces hard copies of a text document or photo by spraying droplets of ink onto paper.

148.Do a practical of network installation of the printer.
=Done in lab.

149.do a practical to troubleshoot the printer of no cartridge error.
=Done in lab.