



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

1. What is the primary function of a motherboard in a computer?

- a. To store data
- b. To connect all the components of the computer
- c. To manage network connections
- d. To display graphics

Answer: b. To connect all the components of the computer

Explanation: The motherboard is the main circuit board that connects and allows communication between all components of the computer, such as the CPU, RAM, and storage devices.

2. Which component is typically NOT found on a motherboard?

- a. CPU socket
- b. RAM slots
- c. Power supply unit
- d. Chipset

Answer: c. Power supply unit

Explanation: The power supply unit (PSU) is a separate component that supplies power to the computer. The motherboard includes the CPU socket, RAM slots, and chipset, among other components.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

3. What is the role of the chipset on a motherboard?

- a. To store data
- b. To manage data flow between the processor, memory, and peripherals
- c. To provide power to the components
- d. To enhance graphics performance

Answer: b. To manage data flow between the processor, memory, and peripherals

Explanation: The chipset is a crucial part of the motherboard that manages communication between the CPU, memory, storage devices, and peripherals, ensuring they work together efficiently.

4. Which of the following is a type of motherboard form factor?

- a. USB
- b. ATX
- c. HDMI
- d. SSD

Answer: b. ATX

Explanation: ATX (Advanced Technology eXtended) is a standard motherboard form factor that defines its dimensions and layout. Other form factors include microATX and mini-ITX.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

5. What does BIOS stand for, and where is it located?

- a. Basic Input Output System, located on the CPU
- b. Binary Input Output System, located on the RAM
- c. Basic Input Output System, located on the motherboard
- d. Binary Input Output System, located on the hard drive

Answer: c. Basic Input Output System, located on the motherboard

Explanation: BIOS (Basic Input Output System) is firmware stored on a chip on the motherboard. It initializes and tests the hardware components during the booting process and provides runtime services for operating systems and programs.

6. Which slots on the motherboard are used for installing RAM?

- a. PCI slots
- b. AGP slots
- c. DIMM slots
- d. SATA slots

Answer: c. DIMM slots

Explanation: DIMM (Dual Inline Memory Module) slots are used to install RAM on the motherboard. These slots provide the connection between the RAM and the motherboard.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

7. What is the purpose of the CMOS battery on a motherboard?

- a. To power the CPU
- b. To store the operating system
- c. To maintain system time and BIOS settings
- d. To provide backup power to the hard drive

Answer: c. To maintain system time and BIOS settings

Explanation: The CMOS (Complementary Metal-Oxide-Semiconductor) battery provides power to the BIOS firmware, allowing it to maintain system time and settings even when the computer is turned off.

8. Which type of connector is commonly used for attaching hard drives to the motherboard?

- a. USB
- b. SATA
- c. VGA
- d. HDMI

Answer: b. SATA

Explanation: SATA (Serial ATA) connectors are commonly used for connecting hard drives, SSDs, and optical drives to the motherboard, facilitating data transfer.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

9. What does PCIe stand for, and what is it used for on a motherboard?
- a. Peripheral Component Interconnect Express, used for graphics cards and other high-speed peripherals
 - b. Peripheral Component Interconnect External, used for external devices
 - c. Primary Component Interconnect Express, used for CPUs
 - d. Primary Component Interconnect External, used for RAM

Answer: a. Peripheral Component Interconnect Express, used for graphics cards and other high-speed peripherals

Explanation: PCIe (Peripheral Component Interconnect Express) is a high-speed interface standard used on motherboards to connect graphics cards, SSDs, and other high-performance peripherals.

10. What is the purpose of the Northbridge and Southbridge on a traditional motherboard?
- a. To power the CPU and RAM
 - b. To connect the CPU to high-speed and low-speed devices, respectively
 - c. To manage audio and video output
 - d. To provide network connectivity

Answer: b. To connect the CPU to high-speed and low-speed devices, respectively

Explanation: On traditional motherboards, the Northbridge connects the CPU to high-speed components like RAM and graphics cards, while the Southbridge connects to lower-speed peripheral devices like storage and input/output ports.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

11. What is the primary function of the Northbridge chipset?

- a. Managing communication between the CPU and high-speed devices
- b. Managing communication between the CPU and low-speed devices
- c. Controlling input/output operations
- d. Managing the power supply

Answer: a. Managing communication between the CPU and high-speed devices

Explanation: The Northbridge chipset is responsible for managing communication between the CPU, RAM, and high-speed graphics interfaces.

12. Which component typically communicates directly with the Southbridge chipset?

- a. CPU
- b. RAM
- c. Hard drives and USB ports
- d. Graphics card

Answer: c. Hard drives and USB ports

Explanation: The Southbridge chipset typically handles communication with lower-speed peripherals such as hard drives, USB ports, and other I/O devices.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

13. Which type of bus is typically used to connect external devices such as keyboards and mice to a computer?

- a. PCI bus
- b. USB bus
- c. Data bus
- d. Address bus

Answer: b. USB bus

Explanation: The USB (Universal Serial Bus) bus is commonly used to connect external devices like keyboards, mice, printers, and storage devices to a computer.

14. What is the purpose of an expansion slot on a motherboard?

- a. To store data permanently
- b. To connect external devices
- c. To allow additional hardware to be added to the computer
- d. To provide power to the CPU

Answer: c. To allow additional hardware to be added to the computer

Explanation: Expansion slots on a motherboard are designed to accommodate additional hardware components, such as graphics cards, sound cards, and network cards, enhancing the computer's capabilities.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

15. Which of the following is a type of expansion slot?

- a. SATA
- b. PCIe
- c. USB
- d. HDMI

Answer: b. PCIe

Explanation: PCIe (Peripheral Component Interconnect Express) is a type of expansion slot used for high-speed internal connections, allowing devices like graphics cards and SSDs to be installed.

16. Which type of expansion slot is designed for high-speed storage devices, such as NVMe SSDs?

- a. AGP
- b. PCI
- c. PCIe
- d. ISA

Answer: c. PCIe

Explanation: PCIe (Peripheral Component Interconnect Express) slots are used for high-speed storage devices like NVMe SSDs, offering high bandwidth and fast data transfer rates.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

17. What is the purpose of a sound card installed in an expansion slot?

- a. To increase processing power
- b. To provide enhanced audio capabilities
- c. To manage network connections
- d. To improve graphics performance

Answer: b. To provide enhanced audio capabilities

Explanation: A sound card installed in an expansion slot enhances the computer's audio capabilities, providing higher-quality sound output and input compared to integrated audio solutions.

18. Which expansion slot would you use to add a network card for wired internet connectivity?

- a. AGP
- b. PCI
- c. PCIe
- d. ISA

Answer: c. PCIe

Explanation: While older network cards might use PCI, modern network cards typically use PCIe slots due to their higher bandwidth and performance.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

19. What advantage do PCIe slots have over older PCI slots?

- a. Lower power consumption
- b. Higher speed and bandwidth
- c. Smaller physical size
- d. Compatibility with more devices

Answer: b. Higher speed and bandwidth

Explanation: PCIe (Peripheral Component Interconnect Express) slots offer significantly higher speed and bandwidth compared to older PCI slots, allowing for faster data transfer and better performance for connected devices.

20. What does UEFI stand for?

- a. Universal Extensible Firmware Interface
- b. Unified Extensible Firmware Interface
- c. Universal Expansion Firmware Interface
- d. Unified Expansion Firmware Interface

Answer: b. Unified Extensible Firmware Interface

Explanation: UEFI stands for Unified Extensible Firmware Interface. It is a modern firmware interface for computers, designed to replace the traditional BIOS.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

21. Which of the following is a key feature of UEFI?

- a. Support for 32-bit processors only
- b. Graphical user interface support
- c. Limited to 1 MB of bootloader size
- d. No support for network booting

Answer: b. Graphical user interface support

Explanation: UEFI supports a graphical user interface (GUI), making it easier to navigate and configure compared to the text-based BIOS interface.

22. What is one major advantage of UEFI over traditional BIOS?

- a. UEFI does not support modern hardware
- b. UEFI can only boot from hard drives
- c. UEFI can support drives larger than 2 TB
- d. UEFI does not allow secure boot

Answer: c. UEFI can support drives larger than 2 TB

Explanation: One major advantage of UEFI over traditional BIOS is its ability to support hard drives larger than 2 TB, which BIOS cannot handle due to its limitations.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

23. Which partitioning scheme is typically associated with UEFI?

- a. MBR (Master Boot Record)
- b. GPT (GUID Partition Table)
- c. FAT16
- d. NTFS

Answer: b. GPT (GUID Partition Table)

Explanation: UEFI typically uses the GUID Partition Table (GPT) for partitioning, which supports larger disk sizes and more partitions compared to the older Master Boot Record (MBR) scheme.

24. Which of the following operating systems can boot in UEFI mode?

- a. Windows XP
- b. Windows 7 (64-bit)
- c. MS-DOS
- d. Windows 95

Answer: b. Windows 7 (64-bit)

Explanation: Windows 7 (64-bit) and later versions support booting in UEFI mode. Older operating systems like Windows XP and MS-DOS do not support UEFI.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

25. What does POST stand for in computing?

- a. Power-On Self-Test
- b. Peripheral Operating System Test
- c. Primary Operating System Test
- d. Peripheral-On Self-Test

Answer: a. Power-On Self-Test

Explanation: POST stands for Power-On Self-Test. It is a diagnostic testing sequence run by a computer's BIOS/UEFI to check the hardware components and ensure everything is working correctly before booting the operating system.

26. When does the POST process occur?

- a. After the operating system loads
- b. When the computer is powered off
- c. During the computer's boot-up process
- d. When the user logs in

Answer: c. During the computer's boot-up process

Explanation: The POST process occurs during the computer's boot-up sequence, right after the computer is powered on and before the operating system begins to load.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

27. Which hardware component is NOT typically checked during POST?

- a. CPU
- b. RAM
- c. Hard drive
- d. Printer

Answer: d. Printer

Explanation: POST typically checks essential hardware components like the CPU, RAM, and hard drive, but it does not check peripheral devices like printers.

28. Which of the following is a primary device used to connect a computer to a network?

- a. Graphics Card
- b. Network Interface Card (NIC)
- c. Sound Card
- d. USB Hub

Answer: b. Network Interface Card (NIC)

Explanation: A Network Interface Card (NIC) is a hardware component that allows a computer to connect to a network. It can be wired (Ethernet) or wireless (Wi-Fi), enabling the computer to communicate with other devices over a network.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

29. Which device allows multiple peripherals to connect to a computer using a single port?

- a. Router
- b. USB Hub
- c. Modem
- d. Switch

Answer: b. USB Hub

Explanation: A USB Hub is a device that allows multiple USB devices to connect to a single USB port on a computer. It expands the number of available USB ports, enabling users to connect additional peripherals like keyboards, mice, and storage devices.

30. Which connector is commonly used to connect a computer's power supply to the motherboard?

- a. SATA Connector
- b. Molex Connector
- c. 24-Pin ATX Connector
- d. HDMI Connector

Answer: c. 24-Pin ATX Connector

Explanation: The 24-Pin ATX Connector is the standard connector used to supply power from the computer's power supply to the motherboard. It provides power to the motherboard and all the components connected to it.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

31. Which of the following is used to connect a computer to a monitor?

- a. PCIe Slot
- b. SATA Cable
- c. HDMI Cable
- d. Ethernet Cable

Answer: c. HDMI Cable

Explanation: An HDMI (High-Definition Multimedia Interface) cable is commonly used to connect a computer to a monitor. It carries both audio and video signals, making it a popular choice for connecting displays to computers.

32. Which port is typically used to connect external storage devices to a computer?

- a. VGA Port
- b. Ethernet Port
- c. USB Port
- d. HDMI Port

Answer: c. USB Port

Explanation: USB (Universal Serial Bus) ports are commonly used to connect external storage devices, such as external hard drives, flash drives, and other peripherals, to a computer. USB ports are widely used due to their versatility and ease of use.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

33. Which of the following is used to connect a computer to a wired network?

- a. Wi-Fi Adapter
- b. HDMI Cable
- c. Ethernet Cable
- d. DisplayPort

Answer: c. Ethernet Cable

Explanation: An Ethernet cable is used to connect a computer to a wired network. It provides a stable and fast connection to the network, which is often preferred for tasks that require high-speed and reliable internet access.

34. Which of the following is used to connect a computer's internal hard drive to the motherboard?

- a. USB Cable
- b. HDMI Cable
- c. SATA Cable
- d. Ethernet Cable

Answer: c. SATA Cable

Explanation: A SATA (Serial ATA) cable is used to connect a computer's internal hard drive or SSD to the motherboard. It transfers data between the storage device and the motherboard, allowing the computer to read and write data to the storage device.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

35. Which type of connector is commonly used for connecting older monitors to computers?

- a. USB-C
- b. DisplayPort
- c. VGA
- d. Thunderbolt

Answer: c. VGA

Explanation: VGA (Video Graphics Array) is an older type of connector commonly used to connect monitors to computers. While it has largely been replaced by more modern connectors like HDMI and DisplayPort, VGA is still used with older monitors and computers.

36. What type of port is used to connect audio devices, such as speakers and microphones, to a computer?

- a. USB-C
- b. Audio Jack (3.5mm)
- c. HDMI
- d. DVI

Answer: b. Audio Jack (3.5mm)

Explanation: The 3.5mm audio jack is commonly used to connect audio devices like speakers, headphones, and microphones to a computer. It is a standard connector for analog audio signals.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

37. Which of the following connectors is used for high-speed data transfer and charging on modern devices?

- a. VGA
- b. Ethernet
- c. USB-C
- d. Parallel Port

Answer: c. USB-C

Explanation: USB-C is a modern connector that supports high-speed data transfer, video output, and charging on various devices. It is reversible, meaning it can be plugged in either way, and is increasingly becoming the standard for connecting peripherals and charging devices.

38. Which of the following ports is specifically designed for connecting printers to a computer?

- a. VGA Port
- b. Parallel Port
- c. HDMI Port
- d. Thunderbolt Port

Answer: b. Parallel Port

Explanation: The parallel port, also known as a Centronics connector, was traditionally used for connecting printers to computers. It allowed for the transmission of data between the computer and the printer in parallel, hence the name. Though largely replaced by USB connections, parallel ports were common in older computer systems.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

39. Which type of connector is used to attach modern graphics cards to a motherboard?

- a. AGP Slot
- b. PCI Slot
- c. PCIe Slot
- d. ISA Slot

Answer: c. PCIe Slot

Explanation: Modern graphics cards are connected to the motherboard using a PCIe (Peripheral Component Interconnect Express) slot. PCIe slots provide high-speed data transfer rates necessary for demanding applications like gaming and video editing. AGP (Accelerated Graphics Port) and ISA (Industry Standard Architecture) slots were used in older systems but are now obsolete.

40. Which of the following is NOT typically connected via a USB port?

- a. Keyboard
- b. Mouse
- c. Monitor
- d. External Hard Drive

Answer: c. Monitor

Explanation: While USB ports are commonly used to connect peripherals like keyboards, mice, and external hard drives, monitors are typically connected using ports like HDMI, DisplayPort, DVI, or VGA. USB-C is an exception, as some modern monitors support video input through USB-C.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

41. Which connector type is commonly used for connecting internal power supply cables to components like hard drives and SSDs?

- a. Molex Connector
- b. SATA Power Connector
- c. PCIe Power Connector
- d. ATX Power Connector

Answer: b. SATA Power Connector

Explanation: SATA power connectors are commonly used to connect the power supply to internal components like hard drives and SSDs. These connectors provide the necessary power to the storage devices and are standard in modern PCs. Molex connectors were used for older drives but are now largely replaced by SATA connectors.

42. Which port type is primarily used for high-speed external storage devices and video output in modern computers?

- a. FireWire
- b. VGA
- c. Thunderbolt
- d. Serial

Answer: c. Thunderbolt

Explanation: Thunderbolt ports are used for high-speed data transfer, external storage devices, and video output in modern computers.

Thunderbolt combines PCIe and DisplayPort into one connection, providing fast data transfer rates and supporting daisy-chaining of multiple devices.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

43. Which port is commonly used to connect a computer to a Local Area Network (LAN)?

- a. HDMI Port
- b. Ethernet Port
- c. USB Port
- d. VGA Port

Answer: b. Ethernet Port

Explanation: An Ethernet port, also known as an RJ-45 port, is used to connect a computer to a Local Area Network (LAN). This port is essential for wired internet connections, providing stable and fast network access.

44. Which connector type is most commonly used to connect internal fans to the motherboard?

- a. Molex Connector
- b. SATA Data Connector
- c. 3-pin/4-pin Fan Connector
- d. USB Connector

Answer: c. 3-pin/4-pin Fan Connector

Explanation: Internal fans are typically connected to the motherboard using 3-pin or 4-pin fan connectors. The 4-pin connectors allow for PWM (Pulse Width Modulation) control, which enables the motherboard to adjust fan speed based on temperature.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

45. Which port is typically used to connect older analog audio and video devices to a computer?

- a. VGA Port
- b. RCA Connector
- c. HDMI Port
- d. USB Port

Answer: b. RCA Connector

Explanation: RCA connectors were traditionally used to connect older analog audio and video devices to a computer or TV. These connectors are color-coded (yellow for video, red and white for audio) and have been largely replaced by digital connectors like HDMI.

46. Which of the following ports is designed specifically for digital video output and is commonly used in modern computers and monitors?

- a. VGA
- b. DVI
- c. USB-C
- d. DisplayPort

Answer: d. DisplayPort

Explanation: DisplayPort is a digital display interface primarily used to connect a video source to a monitor or other display device. It supports high resolutions and refresh rates, making it ideal for modern computers and monitors, especially in professional and gaming environments.



Name of the Bundle	Advanced Bundle V1	Subject	Technical Support Fundamentals
Topic	Motherboard	Last updated on	07 August 2024

47. Which type of connector is often used to connect internal optical drives (CD/DVD) to the motherboard in older computers?

- a. SATA
- b. IDE/PATA
- c. PCIe
- d. USB

Answer: b. IDE/PATA

Explanation: IDE (Integrated Drive Electronics), also known as PATA (Parallel ATA), was commonly used to connect internal optical drives like CD and DVD drives to the motherboard in older computers. SATA has since replaced IDE for connecting both optical and hard drives due to its higher data transfer speeds and improved cable management.