

How are RGB colors notated?

- Two groups of three hex digits
- Three groups of two binary digits
- Three groups of two hex digits
- Four groups of three decimal digits

You did not answer this question completely correctly. The fully correct answer is indicated above.

Explanation:

When notating colors using RGB (Red, Green Blue) you use three groups of two hex digits; the first represents red, the second green, and the third blue.

An IPv6 address is composed of how many 16-bit sections?

- 12
- 2
- 8
- 4

You did not answer this question completely correctly. The fully correct answer is indicated above.

Explanation:

An IPv6 address is 128 bits and is represented in eight 16-bit sections represented with hexadecimal digits.

What is the name that is often used to reference the 255-character extended ASCII character set?

- ALFO
- ISO
- ANSI
- AFI

You did not answer this question completely correctly. The fully correct answer is indicated above.

Explanation:

The ANSI character set uses 255 extended ASCII characters.

A(n) \_\_\_\_\_ is a command or information that is made available to a computer.

- insertion
- **input**
- data
- entry

You answered this question correctly.

×

Explanation:

There are four major tasks that computers perform: input, processing, output, and storage. Input is a command or information that is made available to a computer to process.

What is the most common port type used to connect internal storage devices on non-server devices?

- IDE
- **SATA**
- USB
- **SCSI**

You answered this question correctly.

×

Explanation:

While there are a number of different port types used to connect internal storage devices, the most common one used in modern non-server devices is SATA.

\_\_\_\_\_ is a statistical association between two items.

- Data determination
- **Data correlation**
- Data schema
- Data causation

You answered this question correctly.

×

Explanation:

Data correlation is a statistical association (close relationship) between two or more items; not to be confused with data causation, which directly links the items to each other.

A \_\_\_\_\_ includes various ways an organization distinguishes its products and services from others in a similar field.

- patent
- copyright
- **trademark**
- trade secret

You answered this question correctly.

×

Explanation:

A trademark includes various ways an organization distinguishes its products and services from others in a similar field.

Question Id : ITFUND-FCOU61-SW-3-02-01

Which options are equal to the decimal number 64?

- 1F
- 100000
- 40
- 1000000

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

When you convert a binary number, the numbers increment in powers of two, starting on the rightmost digit, so the first digit would count for  $2^0$ , the second for  $2^1$ , and so on. When you convert a hexadecimal number, the process works differently. Divide the decimal number by 16. Record the result (4) and the remainder (0 decimal, 0 hex). Divide the result by 16. Record the result (0) and the remainder (4 decimal, 4 hex). Repeat until the result is 0 because you can't divide 0 and get an integer. The answer is composed of the remainders, in order, from the last calculation to the first calculation. In this case, the answer is 40 hexadecimal and 1000000 binary.

Which options are equal to the binary number 1000000000?

- 29
- 512

- 256
- 28

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

When you convert a binary number, the numbers increment in powers of two, starting with the rightmost digit, so the first digit would count for 2<sup>0</sup>, the second for 2<sup>1</sup>, and so on. In this case, the 1 is in the 10th digit's place (10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0) and thus would be equal to 2<sup>9</sup>, or 512.

What are the most likely reasons a device will assign itself an APIPA address?

- Unable to reach the DHCP server
- Misconfigured DNS server
- On a private network
- No network connection

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The main reason why a device would assign itself an APIPA address would be because it is unable to reach a DHCP server to be assigned an IP address; this happens when network reachability to the DHCP server is restricted or a device is not connected to a network.

Which options are equal to the decimal number 255?

- ☒ 1111111
- ☒ FF
- ☐ FD
- ☐ 1111110

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

When you convert a binary number, the numbers increment in powers of two, starting from the rightmost digit, so the first digit would count for 2<sup>0</sup>, the second for 2<sup>1</sup>, and so on. When converting a hexadecimal number, the process works differently. Divide the decimal number by 16. Record the result (15) and the remainder (15 decimal, F hex). Divide the result by 16. Record the result (0) and the remainder (15 hex). Repeat until the result is 0, because you can't divide 0 and get an integer. The answer is composed the remainders in order from the last calculation to the first calculation. For this question, the decimal number is 255, which equals FF in hexadecimal and 1111111 in binary.

Which options are equal to the binary number 10000?

- ☐ 26
- ☒ 16
- ☒ 24
- ☐ 64

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

#### Explanation:

When you convert a binary number, the numbers increment in powers of two, starting at the right digit, so the first (rightmost) digit would count for 2<sup>0</sup>, the second for 2<sup>1</sup>, and so on. In this case, the 1 is in the 5th digit's place (4, 3, 2, 1, 0) and thus would be equal to 2<sup>4</sup>, or 16.

Which options are common input devices on a computer?

- Printer
- Digital camera
- Webcam
- Display

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

#### Explanation:

Several different devices are able to input information into a computer. Some of the common ones include mice, keyboards, touchpads, webcams, scanners, digital cameras, and bar code readers.

Which of the “Five C’s” determines why data was gathered from a source?

- Condensation
- Categorization
- Contextualization
- Consideration

You answered this question correctly.

×

Explanation:

There are five different C's, as defined in the book *Working Knowledge*. These are contextualization, categorization, calculation, corrections, and condensation. Contextualization is the determination of why data was gathered from a source.

What is the name of the international agreement that governs copyrights globally?

- Falsch convention
- Sbagliato convention
- Bourne convention
- Berne convention

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The Berne Convention for the Protection of Literary and Artistic Works (Berne convention) is the international agreement governing copyrights globally.

Which options are common examples of intellectual property?

- Book contents
- Source code
- Government web content
- Concept idea

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.



×

**Explanation:**

Several different things are considered intellectual property, including original content like books, movies, and code for computer programs, as well as material or services that have been trademarked, copyrighted, or service marked.

A \_\_\_\_\_ includes various ways an organization distinguishes its products and services from others in a similar field.

- patent
- copyright
- trademark
- trade secret

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

**Explanation:**

A trademark includes various ways an organization distinguishes its products and services from others in a similar field.

What is the name of the agreement that a user must agree to before using a piece of software?

- DULA
- LAFA
- EULA
- FISA

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

**Explanation:**

End-user license agreement (EULA) is a contract that a user must agree to before using a piece of software.

\_\_\_\_\_ is a statistical association between two items.

- Data causation
- Data determination
- Data schema
- Data correlation

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

**Explanation:**

Data correlation is a statistical association (close relationship) between two or more items; not to be confused with data causation, which directly links the items to each other.

Which options represent the same number?

- 100 Mbps
- 1,000,000 Kbps
- 1 Gbps
- 1,000,000 bps

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The options 1 Gbps (gigabits per second) and 1,000,000 Kbps (kilobits per second) are equal.

The number 1,125,899,906,842,624 is considered 1 \_\_\_\_\_.

- exabyte
- petabyte
- terabyte
- gigabyte

You answered this question correctly.

×

Explanation:

The two numbers that are labeled as 1 petabyte are 1,125,899,906,842,624 (1,024<sup>5</sup>) and 1,000,000,000,000,000 (1000<sup>5</sup>).

Depending on the device, which options are equal to 1KB?

- 1,000 bytes
- 998 bytes
- 1,064 bytes
- 1,024 bytes

Select 2 answers

You answered this question correctly.

×

Explanation:

Depending on the device and the context, both 1,000 and 1,024 bytes are equal to 1KB.

If a modern device had an I/O bus clock of 800 MHz, what would the data rate be for the installed memory?

- 3,200 MT/s
- 800 MT/s
- 400 MT/s
- 1,600 MT/s

You answered this question correctly.

×

Explanation:

To calculate the data (transfer) rate of modern DIMM memory, the I/O bus clock rate is doubled, resulting to a rate in megatransfers per second (MT/s).

A 32-bit processor can support up to \_\_\_\_\_ memory addresses.

- 216
- 220
- 224
- 232

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

A 32-bit processor supports up to  $2^{32}$  memory addresses, or in other words up to ~4GB of memory.

Which two options represent the same number?

- 512 kbps
- 512,000 kbps
- 512,000 bps
- 512,000,000 bps

Select 2 answers

You answered this question correctly.

×

Explanation:

The options 512 kbps (kilobits per second) and 512,000 bps (bits per second) are equal.

Which factors other than processing speed determine the amount of work that can be achieved by a processor?

- Storage type
- Operations per cycle
- Available disk space
- Memory cache

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

A number of different factors can alter the amount of work a processor can perform. Two of these are the number of operations that can be performed per clock cycle and the presence and size of memory cache that exists.

What are the most likely items to check for when streaks are being output by a printer?

- Dirty printhead
- Drum
- Fuser
- Uneven toner distribution

Select 2 answers

You answered this question correctly.

×

Explanation:

Three of the methods that can be used to remove streaks from pages printed on a printer are removing the toner and shaking it from side to side to evenly distribute the toner, cleaning the printhead, and ensuring the correct type of paper is selected.

What action should be taken once a problem's solution has been found?

- Implement the solution
- Test the solution
- Implement preventive measures
- Develop an action plan

You answered this question correctly.

×

Explanation:

Once a solution has been determined, an action plan should be developed before any solution is implemented to ensure all factors are considered.

If a theory of how a problem should be solved is not confirmed, what actions should be taken?

- Retest the theory
- Create an action plan
- Develop a new theory
- Escalate the problem

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

When a theory of what is causing a problem is proven incorrect (not confirmed), then a new theory should be formed or the problem should be escalated to a more experienced group.

What are some of the items that should be checked if a computer is having problems booting?

- Data drive integrity
- UEFI settings
- ADF settings
- System drive integrity

Select 2 answers

You answered this question correctly.

×

Explanation:

When there are issues booting (starting) a computer, some of the things to check on include verifying BIOS/UEFI settings, system drive integrity, and operating system files.

What is the most likely cause of a blank screen being displayed on computer system bootup?

- Video card
- Boot order
- Bad RAM
- Power supply failure

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

If a computer is booting up but has a blank screen, the two most likely causes are video card problems and bad RAM.

What is the name of the feature used to indicate whether a drive is in imminent danger of failing?

- SMART
- RAID
- FEAR
- BIOS

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:



Self-Monitoring, Analysis and Reporting Technology (SMART or S.M.A.R.T.) is a feature used to monitor the status of storage devices and to alert if any problems are found or if any pose an imminent threat of failure.

What technology can typically be used to provide a quick fix to multiple problems?

- Pluggable USB devices
- Pluggable SATA devices
- Network adapter
- Diagnostic reader

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Because USB is hot-pluggable and is used on multiple device types, from keyboards and mice to flash drives, it can be a very versatile option that can provide a quick fix in multiple situations.

To ensure that a solution is properly diagnosed, it is important that \_\_\_\_\_.

- isolation techniques are utilized
- a bottom-up approach is used
- changes occur one at a time
- a top-down approach is used

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

It is important to only perform one change at a time when troubleshooting a problem. This ensures that the correct solution is isolated.

What are some of the actions that can be taken if the RAM of a computer is having issues?

- Verify I/O bus connections
- Reset CMOS settings
- Run memory diagnostics
- Delete the swap files

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Several different things can be done if you believe the RAM in a computer is the cause of computer problems. Some of these solutions include verifying or resetting CMOS/BIOS/UEFI settings, running memory diagnostics, and swapping out the suspected memory module(s).

What is the next step once a plan of action has been completed?

- Full system functionality verification
- Escalate the solution
- Implement preventive measures
- Document findings

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Once an action plan has been completed, the next step is to verify that it corrected the problem in a way that's expected by performing a full system functionality verification.

What is the likely reason a device would be unable to connect to the Internet?

- Misconfigured DHCP server
- Misconfigured WINS server
- Misconfigured manual default gateway
- Misconfigured browser

You answered this question correctly.

×

Explanation:

There are several reasons why a device would be unable to connect to the Internet. Common reasons include the misconfiguration of networking settings (such as address, DNS, and gateway settings), the misconfiguration of DHCP server settings, and the inability to authenticate.

Which of the technologies listed utilize connections via a mini DisplayPort connector?

- USB
- FireWire
- Thunderbolt
- IEEE 1394

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Three different wired peripheral technologies are mainly used: USB, Thunderbolt, and FireWire. Of these, the only one that utilizes the mini DisplayPort connector type is Thunderbolt.

Which Bluetooth device class has the longest range?

- Class A
- Class 1
- Class 3
- Class D

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The three main classes of Bluetooth are Classes 1 through 3, with Class 1 having the longest range (up to 328 feet).

Which version of Thunderbolt supports a maximum speed of 20 Gbps?

- Version 1
- Version 2
- Version 3
- Version 5

You answered this question correctly.

×

Explanation:

There are currently three available versions of Thunderbolt: 1 through 3. Version 2 supports maximum speeds of 20 Gbps.

If you are looking at a new computer and notice that one of the USB interfaces has a red marking, what is the maximum speed that the port is capable of supporting?

- 10Gbps
- 480Mbps
- 5Gbps
- 2.5Gbps

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Three different USB colors are commonly used as of this writing: black, blue, and red. These offer 480Mbps, 5Gbps, and 10Gbps of maximum speed, respectively.

Which graphic connector type supports daisy-chaining?

- DisplayPort
- VGA
- DVI
- HDMI

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The only option that supports daisy-chaining is DisplayPort.

What would be the result of plugging a USB 3.1 Gen 2 plug into a USB 2.0 port?

- It would work normally.
- It could damage the port.
- It wouldn't work.
- It would work at a reduced speed.

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

USB ports are backward-compatible, so this arrangement would work correctly but at the reduced speed offered by a USB 2.0 port.

What is the minimum grade of cable that supports a gigabit Ethernet connection?

- Category 5e
- Category 5
- Category 6a
- Category 6

You answered this question correctly.

×

Explanation:

There are several unshielded twisted pair cable categories; the common ones related to Ethernet networks are Categories 3, 5, 5e, 6, 6a, and 7. The minimum category of cable that supports gigabit Ethernet is category 5e.

You go to an electronics store and pick up an external hard drive for your Mac, but when you get home and plug it in there are problems accessing the contents of the drive. Why?

- You need to configure proper BIOS/UEFI settings.

- The drive is not formatted.
- The drive is formatted for another OS.
- You need to install the correct drivers.

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Often external hard drives purchased at a retail store are formatted by default for use with a Microsoft Windows device; to use one, you need to reformat it using a Mac-supported format.

Which color-coded 3.5mm plug on a computer is used to connect to a microphone?

- Orange
- Pink
- Blue
- Lime green

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Multiple color codes are used with 3.5mm jacks: light blue/line-in, lime green/speaker, pink/microphone, black/rear speaker, orange/center speaker, and silver/side speaker.

Which DVI variation can be adapted to VGA?

- DVI-I
- DVI-N

- DVI-A
- DVI-D

You answered this question correctly.

×

Explanation:

A DVI port has a few variations, including DVI-D, which supports only digital signals, and DVI-I, which supports both digital and analog signals and can be adapted to VGA.

What is the first step you should take when adding a USB printer to a Microsoft Windows device?

- Upgrade the firmware.
- Update the OS.
- Turn on the printer.
- **Install the drivers.**

You answered this question correctly.

×

Explanation:

The three basic steps involved in adding a printer to a Microsoft Windows device (among others) are installing the printer drivers, ensuring the printer is turned off, and plugging in the printer to the device and turning it on.

Which of the following are valid connector options for external speakers?

- **S/PDIF**
- **HDMI**
- Ethernet
- **FireWire**



Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Modern computers often connect to speakers using one of three different connectors: 3.5mm jack, HDMI, or S/PDIF.

Which color-coded 3.5mm plug on a computer is used to connect to speakers?

- Pink
- Blue
- Lime green
- Orange

You answered this question correctly.

×

Explanation:

Multiple color codes are used with 3.5mm jacks: light blue/line-in, lime green/speaker, pink/microphone, black/rear speaker, orange/center speaker, and silver/side speaker.

What are the two different methods of installing the drivers for a device?

- BIOS/UEFI based
- Plug-and-Play
- Plug-and-Install
- Driver based

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

There are two different ways a devices drivers can be installed: Plug-and-Play, where the drivers are either built in or are automatically downloaded, and manual driver installation, where an OS either doesn't support Plug-and-Play or is unable to correctly identify a device.

What sizes are SSDs typically available in?

- 1.8 inches
- 3.5 inches
- 1 inch
- 2.5 inches

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

SSDs are offered in a number of different form factors, including 1.8 and 2.5 inch varieties similar to a traditional spinning disk drive as well as memory module sized alternatives referred to as M.2.

What is the name given to an ARM-based chip that includes a GPU, Wi-Fi, modem, and other components?

- LRM
- SSR

- SoC
- LuC

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

One of the main advantages to ARM-based chips is that they combine multiple components worth of functionality within the same chip, including CPU, Wi-Fi, modem, and other components. This is referred to as a System on a Chip (SoC).

Which series of Intel Coffee Lake processors is ultra-low power and doesn't require cooling fans?

- U
- Y
- H
- G

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

There are several different Coffee Lake processor series, including H, G, U, and Y, in order from fastest to slowest. The Y series focuses is on ultra-low power usage.

What terms reference the two instruction sets commonly used for both desktop and laptop computers as well as mobile devices?

- BISC
- CISC

- TRIC
- RISC

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The two major instruction sets used are the reduced instruction set computer (RISC) and complex instruction set computer (CISC).

What is the name of the chip on a computer that runs problems performs operations on bootup that activate essential parts?

- Bootloader
- BIOS
- Firmware
- CMOS

You answered this question correctly.

×

Explanation:

The Basic Input/Output System (BIOS) chip activates a computer's essential functions on bootup to ensure proper operations.

What is the most popular form factor for a desktop computer motherboard?

- XLR
- AT
- XT

- **ATX**

You answered this question correctly.

×

Explanation:

The most common form factors used with modern desktop motherboards include ATX, MicroATX, and Mini-ITX, with ATX being the most popular.

Which wireless standards are capable of maximum speeds in excess of a standard fast Ethernet port?

- **802.11n**
- **802.11ac**
- 802.11a
- 802.11x

Select 2 answers

You answered this question correctly.

×

Explanation:

There are several current and former wireless standards; of these, the only two that are faster than a standard 100Mbps fast Ethernet port are 802.11n (at 150 and 450 Mbps) and 802.11ac (at gigabit speeds or better).

Which type of processor is designed to support one or more CPUs on a motherboard and is optimized for applications like CAD?

- **Workstation**
- Professional
- Dual function

- Server

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Workstation processors are designed to support one or more CPUs on a motherboard and are optimized for applications like CAD, as opposed to those focused on office applications or gaming.

What is the typical size of a hard drive used for a laptop?

- 1 inch
- 2.5 inches
- 3.5 inches
- 1/2 inch

You answered this question correctly.

×

Explanation:

Whereas desktops typically use hard drives that are 3.5 inches wide, laptop drives are typically 2.5 inches wide and narrower.

What is the popular form factor for a desktop computer motherboard that supports a single expansion slot?

- ATX
- MicroATX
- Mini-ITX
- AT

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The most common form factors used with modern desktop motherboards are ATX, MicroATX, and Mini-ITX, with Mini-ITX only offering a single expansion slot.

- FF
- 11111111
- FD
- 1111110

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

When you convert a binary number, the numbers increment in powers of two, starting from the rightmost digit, so the first digit would count for 2<sup>0</sup>, the second for 2<sup>1</sup>, and so on. When converting a hexadecimal number, the process works differently. Divide the decimal number by 16. Record the result (15) and the remainder (15 decimal, F hex). Divide the result by 16. Record the result (0) and the remainder (15 hex). Repeat until the result is 0, because you can't divide 0 and get an integer. The answer is composed the remainders in order from the last calculation to the first calculation. For this question, the decimal number is 255, which equals FF in hexadecimal and 11111111 in binary.

Which options are equal to the binary number 10000?

- 64
- 26
- 16
- 24

You answered this question correctly.

×

Explanation:

When you convert a binary number, the numbers increment in powers of two, starting at the right digit, so the first (rightmost) digit would count for 2<sup>0</sup>, the second for 2<sup>1</sup>, and so on. In this case, the 1 is in the 5th digit's place (4, 3, 2, 1, 0) and thus would be equal to 2<sup>4</sup>, or 16.

Which wireless technology is typically used by WISPs to offer Internet services to those out of reach of DSL or cable but with similar data plans?

- Satellite
- Fixed wireless
- ATM
- Cellular

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Fixed wireless technologies like IEEE 802.11 and 802.16 are often used by wireless Internet service providers (WISPs) to offer Internet access to those out of reach of more traditional technologies like DSL and cable.

Which type of fiber optic cable has a thick core and is designed to carry multiple light rays for shorter distances?



- Category 6
- **Multi-mode**
- Category 5e
- Single mode

You answered this question correctly.

×

Explanation:

A multi-mode fiber optic cable has a thicker core (50 and 62.5 microns) and is designed to carry information shorter distances using a multiple paths (modes) of light.

Which type of fiber optic cable has a thin core (8 and 10 microns) design to carry information long distances?

- **Single mode**
- Category 5e
- **Multi-mode**
- Category 6

You answered this question correctly.

×

Explanation:

A single-mode fiber optic cable has a thin core (8 and 10 microns) and is designed to carry information longer distances using a single path (mode) of light.

Which type of DSL supports speeds of up to 500Mbps down and 100Mbps up?

- ADSL
- **VDSL**
- SDSL

- HDSL

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

There are several different versions of Digital Subscriber Line (DSL), with the most common often being Asynchronous DSL in most markets. However, ADSL is quite limited in the speeds that are available. Very High Rate DSL (VDSL) offers much higher speeds (up to 500/100Mbps) but has stricter distance requirements.

Which common type of fiber optic connector is round?

- SC
- ST
- MPO
- LC

You answered this question correctly.

×

Explanation:

There are several types of fiber optic connectors. The common ones include ST, SC, LC, and MPO. Of these, the only one that's round is ST. Both SC and LC are square connectors, and MPO connectors are uniquely shaped.

Which file systems are often used for flash drives when they are initially purchased?

- FAT32
- exFAT
- vFAT
- NTFS

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

It is common to see flash drives formatted using both FAT32 and exFAT, depending on the size of the flash drive.

Which type of flash memory chips are commonly used by SSDs?

- NOR
- ALC
- SLC
- **NAND**

You answered this question correctly.

×

Explanation:

Most modern SSDs utilize NAND flash memory chips along with a controller.

Which options include modern valid optical drive categories?

- **Compact disc**
- **High definition compact disc**
- **Digital video disc**
- **Optical digital disc**

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The three different modern optical drive categories are compact disk (CD), digital video disk (DVD), and Blu-ray (BD).

Which options are not common types of microSD or SD cards?

- SDLC
- SDHC
- SDXC
- SDAC

Select 2 answers

You answered this question correctly.

×

Explanation:

There are three common types of SD card: SD (up to 2GB), SDHC (up to 32GB), and SDXC (above 32GB).

Which command would be used on a Linux computer to determine the kernel being used?

- version -a
- kernel -r
- fstab -k
- uname -r

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

When you're installing an SSD into a computer that is running Linux, it is a good idea to verify it is using at least kernel version 3.8; this can be verified with the `uname -r` command.

Which TCP port numbers are associated with the HTTP/S protocols?

- ☒ 80
- ☐ 20
- ☒ 443
- ☐ 21

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The HyperText Transfer Protocol (HTTP) and HyperText Transfer Protocol - Secure (HTTPS) use TCP ports 80 and 443, respectively.

What are the two protocols commonly used to retrieve email?

- ☒ IMAP
- ☐ SMTP
- ☐ FTP
- ☒ POP3

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The two protocols commonly used to retrieve email are Post Office Protocol (POP) version 3 and Internet Message Access Protocol (IMAP).

What is the name of the technology deployed on some 802.11ac routers that can provide more efficiency in the allocation of network bandwidth when multiple devices are connected?

- HU-MIMO
- SU-MIMO
- **MU-MIMO**
- MIMO

You answered this question correctly.

×

Explanation:

Multiuser Multiple In Multiple Out (MU-MIMO) is a technology some 802.11ac devices support that allows for more efficient allocation of bandwidth in multiple-user environments.

Which wireless networking standard supports up to eight spatial streams and utilizes the 5GHz band?

- 802.11g
- 802.11n
- 802.11x
- **802.11ac**

You answered this question correctly.

×

Explanation:

The 802.11ac wireless standard supports up to eight spatial streams, up to 867Mbps per stream, and only utilizes the 5GHz band.

What is the name of the encryption technology used when implementing WPA2?

- 3DES
- MD5
- AES
- TKIP

You answered this question correctly.

×

Explanation:

The Advanced Encryption Standard (AES) is the encryption technology used when implementing WPA2.

What types of internal add-on cards are supported for use with Wi-Fi adapters?

- PCI
- ISA
- PCIe
- USB

Select 2 answers

You answered this question correctly.

×

Explanation:

The two different types of internal add-on card are PCI and PCIe.

How many non-overlapping channels exist within the 2.4GHz wireless networking band?

- 3
- 43
- 11
- 14

You answered this question correctly.

×

Explanation:

Only three different non-overlapping channels exist within the 2.4GHz band, which is why the 5GHz band is often preferred.

Which type of slot is typically used on laptop computers to connect to wireless adapters?

- microPCIe
- PCIe
- ISA
- PCI-X

You answered this question correctly.

×

Explanation:

Modern laptops typically use a microPCIe slot that's used for wireless adapters.

Which application architecture model has the presentation, logic, and data layers at the same location?

- One tier



- Consolidated
- Organic
- Single layer

You answered this question correctly.

×

Explanation:

A one-tier application model has the presentation, logic, and data layers stored in the same location. Other options include two, three, and n tiers.

What are the characteristics of a program hosted on a local network?

- Network is required.
- Files always save locally.
- Internet access is not required.
- Application is locally installed.

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The two main characteristics of a program hosted a local network are a network being required but Internet access not being required. Files can be saved either locally or remotely.

Which options describe some of the main compatibility problems when dealing with a cross-platform solution?

- Memory limits

- Video playback
- Font substitution
- Language support

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

There are a number of issues to watch out for when you're developing a program to run on multiple platforms. Some of these include font support and the use of font substitution, photo-handling differences, video and music playback differences, and feature support differences.

Which type of software is designed to run on multiple combinations of hardware and software?

- Multiform
- Cross-platform
- Omni-compatible
- Multi-architecture

You answered this question correctly.

×

Explanation:

The main option developers decide on when starting development is whether they want their product to run on a specific platform or on multiple platforms (cross-platform). If the product is built for multiple platforms, as OpenOffice is, for example, then it is referred to as cross-platform.

Which type of software is designed to run on a single combination of hardware and software?

- Single platform
- Single architecture
- Single compatible
- Single computer

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The two main options developers choose from when starting development is whether they want the product to run on a specific platform and whether it is going to be supported on multiple platforms (cross platform). If the product is built for only a single platform (for example, macOS only), then it is referred to as “single platform.”

Which type of licensing enables all users in a specific group to run a piece of software legally?

- Join license
- Site license
- Concurrent license
- Company license

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

A site or group license is typically used with large organizations that have multiple users of the same software package.

Which type of licensing enables a single copy of a program to be used on multiple computers managed by the same user?

- Group license
- Join license
- **Concurrent license**
- User license

You answered this question correctly.

×

Explanation:

Concurrent licensing allows a single copy of a program to be used on multiple computers, as long as it is owned and managed by a single user.

\_\_\_\_\_ is used by everyone who has ever opened a web page.

- **HTML**
- JavaScript
- XML
- YAML

You answered this question correctly.

×

Explanation:

The Hypertext Markup Language is used in writing web pages and has been used by everyone who has viewed one.

What is the name of the scripting language that has been included with versions of Microsoft Windows from version 7 forward?

- JavaScript
- PowerShell
- BASIC
- VBScript

You answered this question correctly.

×

Explanation:

PowerShell is a powerful scripting language that has been included with all versions of Microsoft Windows since version 7.

Which language is English-like in syntax and is often used for maintenance of existing applications?

- Perl
- PHP
- Pascal
- COBOL

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The Common Business-Oriented Language (COBOL) has been around since 1959, and on modern systems it's typically used for the maintenance of existing applications.

What is the name of the language typically used to create client-server web applications?

- Java
- PHP

- Perl
- JavaScript

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Java is frequently used for creating client-server web applications as well as for programming mobile phones, smart cards, and many Internet of Things (IoT) devices.

The \_\_\_\_\_ contains a text editor for writing language statements and an interpreter to test the program.

- RBC
- IDE
- MTE
- TPE

You answered this question correctly.

×

Explanation:

The integrated development environment (IDE) contains a text editor for writing language statements and an interpreter to test the program.

What is the subset of JavaScript used for data interchange between languages such as XML and JavaScript?

- REST
- BSON
- YAML

- JSON

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

JavaScript Object Notation (JSON) is used for data interchange between languages such as XML and SQL.

Which language is often considered a “glue” language that connects different systems and interfaces between platforms?

- Perl
- Pascal
- PHP
- C

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Perl combines features from several languages and is often considered a “glue” language that connects different systems and interfaces.

The use of if statements in programing logic is an example of \_\_\_\_\_.

- gating
- modularization
- branching
- looping

You answered this question correctly.

×

Explanation:

Branching involves choosing between options based on one or more variables; this is often done through the use of if statements.

A \_\_\_\_\_ diagram can be useful in helping non-programmers understand program logic.

- process
- UML
- nerf
- sequence

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

A Unified Modeling Language (UML) diagram can be useful in helping non-programmers understand program logic.

What type of loop has a condition that is evaluated at the end of the loop logic and will continue the loop as long as the condition is true?

- For
- Do while
- While
- Then



You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

With a do while loop, a condition is set and evaluated for truth, similar to a while loop, but instead of the statement being at the beginning of the loop logic, it is at the end.

What type of loop starts with an original value and stops when a termination value is reached?

- For
- Then
- Do while
- While

You answered this question correctly.

×

Explanation:

With a for loop, a value is set and then incremented or decremented per loop iteration until a termination value is reached.

In a flowchart, what does a rectangle represent?

- Process
- Decision
- Data
- Start/end

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

**Explanation:**

A number of different shapes are used on a flowchart; some of the common ones are rectangles (processes), diamonds (decisions), parallelograms (data), capsules (start/end), and cylinders (databases).

A \_\_\_\_\_ diagram shows how objects in a program interact with each other during a particular process.

- process
- flow
- sequence
- instruction

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

**Explanation:**

A sequence diagram shows how objects in a program interact with each other during a particular process.

What type of loop has a condition that is checked at the beginning of the logic and continues to loop until the condition is no longer true?

- Do while
- While
- Then
- For

You answered this question correctly.

×

Explanation:

With a while loop, a condition is set and evaluated for truth; as long as it is true, the loop logic will continue.

In a flowchart, what does a diamond represent?

- Start/end
- Process
- Data
- Decision

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

A number of different shapes are used in a flowchart; some of the common ones are rectangles (processes), diamonds (decisions), parallelograms (data), capsules (start/end), and cylinders (databases).

A(n) \_\_\_\_\_ is a resizable collection of the same type of object.

- table
- vector
- matrix
- array

You answered this question correctly.

×

Explanation:

A vector is a resizable collection of the same type of object. This differs from an array because it can be resized and new objects can be inserted anywhere into the collection.

A \_\_\_\_\_ is a subroutine or procedure that is inside a larger program.

- statement
- block
- vector
- **function**

You answered this question correctly.

×

Explanation:

A function is a subroutine or procedure that is inside a larger program. Often programming languages have a number of functions that are built in on top of a large number of other functions that can be added onto based on need.

What is the term given to something that is a combination of data, its properties, its attributes, and procedures?

- Drawer
- **Object**
- **Container**
- Function

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

In programming, an object is a combination of data, its properties, its attributes, and procedures that can be used with that data.

A \_\_\_\_\_ is separate from the normal network to improve performance and often uses Fibre Channel hardware and connections.

- DAS
- NAS
- SAN
- SAS

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

A storage area network (SAN) is separated onto a different network to improve performance; it often uses Fibre Channel hardware and connections.

What is the term that is used to reference how quickly data can be accessed, updated, and analyzed?

- Force
- Velocity
- Speed
- Zenith

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The term velocity is used to reference how quickly data can be accessed, updated, and analyzed.

What are some common ways to speed up a relational database?

- Avoiding the use of keys
- Using data normalization
- Using data defragmentation
- Avoiding looping logic in queries

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Several different things can be done to speed up a relational database, including using a proper database structure, limiting query results, avoiding looping query logic, adding caching, using data normalization, and properly using both primary and logical keys.

Which type of database is an excellent choice when the information is nonstructured or semi-structured?

- Differential
- Flat file
- Distributed
- Relational

You answered this question correctly.

×

Explanation:

A flat file database works well when the information that it contains is non- or semi-structured in nature.

What are the ways that relational tables can be related?

- Many-to-many
- One-to-several
- One-to-one
- Several-to-several

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The three ways relational tables can be related are one-to-one, one-to-many, and many-to-many.

What is a common acronym used to help understand how databases work?

- ALST
- SISL
- ACID
- SIBO

You answered this question correctly.

×

Explanation:

ACID is a common acronym that is used when explaining how databases work. A stands for Atomicity, C standard for Consistency, I stands for Isolation, and D stands for Durability.

A(n) \_\_\_\_\_ is a data structure that contains rows and columns.

- shelf
- **table**
- container
- element

You answered this question correctly.

×

Explanation:

A table is a data structure that contains rows and columns; a database is made up of one or more tables.

A \_\_\_\_\_ is a question that can be answered from the contents of a database.

- search
- **query**
- question
- request

You answered this question correctly.

×

Explanation:

A query is used to request specific information held within a database, often using Structured Query Language (SQL).



What is the name of the unique value assigned for each row of a database table?

- Foreign key
- Secondary key
- **Primary key**
- Reference key

You answered this question correctly.

×

Explanation:

A primary key contains a unique value for each row of a database table and is required for each table; an example would be a user ID.

A \_\_\_\_\_ is database data organized into a structure of columns and rows

- layout
- **schema**
- **table**
- container

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

A table references the different data structures that exist with databases that contain columns (vertical) and rows (horizontal).

What is the name of the value that is used to relate two database tables together?

- Foreign key
- Reference key
- Primary key
- Secondary key

You answered this question correctly.

×

Explanation:

A foreign key is used to relate together different tables. This is typically implemented with one table linking one of its secondary fields (foreign) with the primary key field of the other.

What is the term that usually refers to the structure of a database?

- Layout
- Schema
- Container
- Table

You answered this question correctly.

×

Explanation:

The term schema is usually used to reference the structure of a database.

What are the two major types that exist within a nonrelational database?

- Field
- Document
- Key/value
- Record

Select 2 answers

You answered this question correctly.

×

Explanation:

The two major types that exist within a nonrelational database are a key or value and a document.

Which options are valid types of data structures?

- Nonstructured
- Centralized
- Structured
- Distributed

Select 2 answers

You answered this question correctly.

×

Explanation:

The three main types of data structures include structured, semi-structured, and nonstructured.

\_\_\_\_\_ is often used for transfers between web servers and apps.

- YAML
- JSON
- XML
- RIPE

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

JavaScript Object Notation (JSON) is often used for transfers between web servers and apps.

\_\_\_\_\_ are properties assigned to a column or set of columns and define what type of data can be placed there.

- Schemas
- Constraints
- Fields
- Elements

You answered this question correctly.

×

Explanation:

Constraints are properties assigned to a column or set of columns and define what type of data can be placed there. Their purposes it to ensure data is consistent and to enforce data integrity.

\_\_\_\_\_ a database enables its data to be used by another app or server.

- Purging
- Exchanging
- **Exporting**
- Transferring

You answered this question correctly.

×

Explanation:

If the data that is within a database needs to be moved over to another application or server, it is exported. In the other direction, if data from another application or server is added to a database, it is imported.

In the data definition language (DDL), what is the command that is used to make a new data structure in a database?

- INSERT
- ALTER
- ADD
- **CREATE**

You answered this question correctly.

×

Explanation:

The CREATE command is used to make a new data structure (database, table, index) or stored procedure.

Which type of export copies information from a database along with its schema?

- Database dump
- Full
- Inclusive
- Progressive

You answered this question correctly.

×

Explanation:

A database dump (logical backup) exports the database schema plus the data into a file.

What is the name of the process used to add new records to a database table?

- Introduce
- Merge
- Add
- Insert

You answered this question correctly.

×

Explanation:

Insert refers to the process of adding new records to a database table.

\_\_\_\_\_ is the process of specifying the data desired.

- Determination
- Specify
- Query
- Select

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Select is the process of specifying the data desired, often via the use of a query.

\_\_\_\_\_ refers to the selection of existing data, the insertion of new data, the deletion of unneeded data, and the updating of outdated data.

- Data alteration
- Data manipulation
- Data use
- Data consumption

You answered this question correctly.

×

Explanation:

Data manipulation refers to the selection of existing data, the insertion of new data, the deletion of unneeded data, and the updating of outdated data.

What is the name given to a backup that is run while a database is currently running?

- Running

- Shadow
- **Hot**
- Active

You answered this question correctly.

×

Explanation:

A hot backup occurs when a database is backed up while it is actively in use.

In the data definition language (DDL), what command is used to modify an existing database object?

- **ALTER**
- INSERT
- **MODIFY**
- CHANGE

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The ALTER command is used to modify existing objects within a database.

\_\_\_\_\_, in the security context, refers to methods for recording users' access to internal and external resources.

- Controlling
- **Monitoring**
- **Accounting**
- Automating



You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Accounting, in the security context, refers to methods for recording users' access to internal and external resources.

\_\_\_\_\_ is a legal term that refers to any situation in which an individual cannot challenge their authorship of a document.

- Concession
- Non-assertion
- **Nonrepudiation**
- Affirmation

You answered this question correctly.

×

Explanation:

Nonrepudiation is a legal term that refers to any situation in which an individual cannot challenge their authorship of a document.

Which options are valid types of account on a macOS device?

- **Standard**
- **Sharing only**
- Supervisor
- Power user

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

There are four types of accounts available on a macOS device: Administrator, Standard, Managed with Parental Controls, and Sharing only.

Which Ubuntu Linux command-line command is used to alter the ownership of a file or folder?

- sudo chown
- sudo chmod
- sudo chper
- sudo chalt

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The sudo chown Ubuntu Linux command is used to alter the ownership of a file or folder; the sudo chmod command is used to alter its permissions.

What are some examples of common identifying mechanisms that are used for single-factor authentication?

- Smart card
- MAC address
- Username/password
- IP address

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Common examples of identification methods used with single-factor authentication are username/password and MAC address.

Which access control mechanism assigns access levels to users based on their position and duties within an organization?

- RTAK
- **RBAC**
- APAC
- LMRT

You answered this question correctly.

×

Explanation:

Role-based access control (RBAC) assigns access levels to users based on their position and duties (role) within an organization.

\_\_\_\_\_ refer(s) to the actions a user or group can take when working with a drive.

- Agreements
- Access
- Accreditations
- **Permissions**

You answered this question correctly.

×

Explanation:

Permissions refer to the actions a user or group can take when working with a drive.

What are valid methods of accounting, in the security context?

- Tracking
- Receipts
- Logging
- Signatures

Select 2 answers

You answered this question correctly.

×

Explanation:

Some common methods of accounting in the security context include logging, tracking, and maintaining histories (Web).

\_\_\_\_\_ enable users to determine which users and groups can have access to their resources.

- PACs
- MACs
- DACs
- TACs

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Discretionary Access Controls (DAC) enable users to determine which users and groups can have access to their resources.

\_\_\_\_\_ is used by large organizations to automate the transfer of older data from high-speed to lower-speed storage.

- Hierarchical storage management
- Tiered storage management
- File backup optimization
- Storage archive management

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

Hierarchical storage management (HSM) is used by large organizations to automate the transfer of older data from high-speed to lower-speed storage.

Which type of disaster recovery site maintains power, HVAC, network connections, and hardware but not a live backup of the primary site?

- Cold site
- Standby site
- Warm site
- Staged site

You answered this question correctly.

×

Explanation:

There are three categories of disaster recovery sites: cold site, warm site, and hot site. A cold site has power, HVAC, and network connections but no equipment. A warm site has power, HVAC, network connections, and hardware but doesn't have live backups that impair its ability to take over quickly when the primary site fails. A hot site has everything needed to take over the duties of the primary site, typically within minutes (or less) of the failure occurring.

Which RAID level copies all writes to two drives at the same time?

- ☒ 1
- ☐ 6
- ☐ 5
- ☐ 0

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

RAID 1 (or mirroring) utilizes two different drives, where all data is copied to both at the same time.

Which type of file backup method copies files to another location in such a way that different versions are restorable?

- ☐ Storage database
- ☐ File archive
- ☐ Storage copies
- ☒ File history

You answered this question correctly.

×

Explanation:

There are a number of different file backup methods: file synchronization, file copying, file history, and file backup with compression. When file history is used, multiple versions of the files backed up are maintained to offer another layer of backup capability.

What is the name of the feature on Microsoft Windows devices that provides the ability to perform software RAID?

- Disk Clones
- Storage Spaces
- Storage Redundancy
- Virtual Drives

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

Explanation:

The Storage Spaces feature on Microsoft Windows 8 and above devices provides support for software RAID.

\_\_\_\_\_ store the operating system and current settings into a specific archive file that can be restored with bootable media.

- Image backups
- Synchronization backups
- State backups
- Snapshot backups

Select 2 answers

You did not answer this question completely correctly. The fully correct answer is indicated above.

×

**Explanation:**

Image (or snapshot) backups store the operating system and current settings into a specific archive file that can be restored with bootable media.

Which type of disaster recovery site maintains power, HVAC, and network connections but not hardware?

- Hot site
- Standby site
- Staged site
- **Cold site**

You answered this question correctly.

×

**Explanation:**

There are three categories of disaster recovery sites: cold site, warm site, and hot site. A cold site has power, HVAC, and network connections but no equipment. A warm site has power, HVAC, network connections, and hardware but doesn't have live backups that impair its ability to take over quickly when the primary site fails. A hot site has everything needed to take over the duties of the primary site, typically within minutes (or less) of the failure occurring.

\_\_\_\_\_ is the act of copying information between devices so that if the primary device fails, another device can take over for it.

- **Replication**
- Cloning
- Backup
- Insurance

You answered this question correctly.



×

#### Explanation:

Replication is the act of copying information between devices so that if the primary device fails, another device can take over for it.