

B.2.6 A+ 220-1201 Core1 Exam Practice

Date: 12/13/2025, 7:38:09 PM

Time Spent: 01:30:00

Score: 51%

Passing Score: 80%



Question 1

✓ Correct

This protocol facilitates requests for an IP address and other network settings and uses ports 67 and 68.

- ☒ Dynamic Host Configuration Protocol ✓ Correct
- ☐ Lightweight Directory Access Protocol
- ☐ Domain Name System
- ☐ Network Basic Input/Output System

Explanation

Dynamic Host Configuration Protocol (DHCP) utilizes two ports. DHCP clients use UDP port 68 to request an IP address configuration from a server. The server responds using UDP port 67 to provide clients with an IP address configuration.

Domain Name System (DNS) facilitates the identification of hosts by name alongside IP addressing and is utilized over UDP traditionally or TCP port 53 in specific circumstances.

Network Basic Input/Output System (NetBIOS) supports legacy Windows versions' networking features that include name service for name registration and resolution, similar to DNS today. It utilizes UDP and TCP ports 137-139.

Lightweight Directory Access Protocol (LDAP) queries information about network users and resources. Third-party applications can use this to query Active Directory. LDAP uses TCP port 389.

Related Content



6.3.6 Well-Known Ports

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Question 2

✔ Correct

A developer uses a design that implements a system-on-chip (SoC) that controls video, sound, networking, and storage as part of the CPU. What is the developer using?

☐ Intel☐ M.2☐ AMD☒ ARM ✔ Correct**Explanation**

Advanced RISC machines (ARM) is a processor architecture based on a 32-bit reduced instruction set computer. Developers use ARMS in the current generation of Apple hardware, most Android smartphones and tablets, most Chromebooks, and some Windows tablets and laptops.

Intel is known as integrated electronics that design internal CPU architectures, an x86 PC processor. A CPU implements an instruction by obtaining it from memory, using its ALU to perform an action, and then storing the result in memory.

Advanced Micro Devices (AMD) manufactures and designs the x86 PC processor.

M.2 adapters can be of different lengths. The adapter card is inserted at an angle and then pushed into place, and secured with a screw.

Related Content 3.4.1 CPU Architecture 3.4.4 ARM CPU Architecture

resources\questions\pt_core1_220_1201_3_5_005.question.xml

Question 3

✔ Correct

A consumer buys the cheapest laptop that they can possibly find. Which component did the consumer choose not to include in the laptop that would help drive down the cost?

- ☐ Microphone
- ☐ Touchpad
- ☒ Webcam ✓ Correct
- ☐ Speaker

Explanation

While just about every laptop has one, it is possible to buy a laptop without a built-in webcam. While the cost-saving may not be significant, having one less component drives down the cost.

Speakers are standard on any modern laptop. Even a budget laptop will include a set of built-in speakers.

A microphone is a standard internal device on a laptop. Even a budget laptop will include a microphone.

A touchpad is a standard component on any laptop. As mouse input is required, even a budget laptop will include a touchpad.

Related Content

9.1.1 Mobile Device Accessories

resources\questions\pt_core1_220_1201_1_2_005.question.xml

Question 4

✔ Correct

A user's phone is not charging. After testing with several known good charging cables, the technician realizes that holding the connection forcefully will start charging the phone. What is the likely problem?

- ☐ Digitizer issue
- ☐ Faulty charging circuit
- ☐ Liquid damage
- ☒ Damaged port ✓ Correct

Explanation

A physically damaged charging port can result in a connector being too loose. The technician was able to force the phone to start charging by pushing the cable into the port and holding it. The damaged port should be replaced by the manufacturer.

A digitizer issue on a mobile phone presents itself by the touch screen not working or not working properly.

Liquid damage can result in visible signs of water under the screen, graphics artifacts, or no image at all.

A faulty charging circuit can result in a swollen battery. The swollen battery is identified by a bulging of the phone, so it no longer lays flat.

Related Content

9.4.2 Hardware Failure Issues

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Question 5

✕ Incorrect

What would cause a central processing unit (CPU) to make only minor changes to the CPU internals that significantly improve performance and increase speed?

- ☐ Single core
- ☐ Multisocket
- ☒ Multicore ✕ Incorrect
- ☐ Multithreading ✓ Correct

Explanation

Multithreading is also known as HyperThreading by Intel. A thread is a stream of instructions generated by a software application. This provides multiple threads of execution at once, supported by the operating system.

Multicore is a design that allows each core to communicate with the others, allowing the processing tasks to be divided and assigned properly. The multicore acts as a single unit.

Multisocket offers multiple sockets and supports two processors for the CPU.

Single core CPU has a single execution unit and set of registers implemented on a single package.

Related Content

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Question 6

✓ Correct

A laptop user has a slim laptop that has very few external ports. As there is no Ethernet port on the laptop, it only uses wireless. The user would like a low-cost solution that allows for an Ethernet connection when not traveling. What does IT purchase for the user?

☒ Port replicator ✓ Correct

☐ Docking station

☐ Lightning cord

☐ Serial connection

Explanation

A port replicator either attaches to a special connector on the back or underside of a laptop or is connected via USB. It provides a full complement of ports for devices such as keyboards, monitors, mice, and network connections.

A docking station is a sophisticated port replicator. When docked, a portable computer can function like a desktop machine or use additional features, such as a full-size expansion card.

Most iPhone and iPad Apple devices use the proprietary Lightning connector. This would be for connecting an iOS device for purposes including charging.

Serial is one of the oldest and simplest computer interfaces. While not many mobile devices have hardware serial ports, the software serial port is often used.

Related Content

9.1.3 Port Replicators and Docking Stations

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Question 7

✓ Correct

What problem does a screensaver help prevent?

☒ Display burn-in ✓ Correct

☐ Dim image

☐ Stuck pixels

☐ Fuzzy image

Explanation

When the same static image displays for an extended period, it can damage the monitor's picture elements, causing a ghost image to "burn" permanently onto the display. An animated screensaver can help prevent this problem.

If the output resolution does not match the display device's native resolution, then the image will appear fuzzy.

Incorrect settings or a failed backlight can cause a dim image. Adjusting the brightness and contrast of a display can help fix a dim image.

A flat-panel monitor defect may cause individual pixels to be "stuck" or "dead." If a digital display panel has stuck pixels and the panel is not replaceable under warranty, then software utilities are available to reactivate pixels.

Related Content

4.3.7 Troubleshoot Video Quality Issues

resources\questions\pt_core1_220_1201_5_3_004.question.xml

Question 8

✔ Correct

An artist looks to achieve greater precision when creating digital drawings. Which input device will help achieve this goal?

- ☐ Touch screen
- ☐ Touchpad
- ☐ Trackpad
- ☒ Touch pen ✓ Correct

Explanation

Most drawing pads and some touch screens can be used with a touch pen or stylus rather than fingers. A stylus allows for more precise control and can be used for handwriting and drawing.

A trackpad acts as an input device and is a larger-format device attached as a peripheral rather than built into a laptop.

A touch screen is also referred to as a digitizer because of the way it converts analog touch input to digital software instructions. A digitizer sits above a display panel.

A touchpad is a navigation device that is built into laptops and acts as a mouse.

Related Content

9.1.1 Mobile Device Accessories

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Question 9

✔ Correct

This protocol transfers email messages across a network and uses TCP port 25.

- ☐ Telnet
- ☐ FTP
- ☒ SMTP ✓ Correct
- ☐ SSH

Explanation

Simple Mail Transfer Protocol (SMTP) transfers email messages across a network and uses TCP port 25.

File Transfer Protocol (FTP) makes files available for download across a network. It utilizes two ports. TCP Port 21 establishes the connection between two computers (control connection), and TCP Port 20 is the port the file(s) are transferred across (data connection).

Telnet makes an unsecured connection to the command-line interface of a remote server and uses TCP Port 23.

Secure Shell (SSH) makes a secure connection to the command-line interface of a remote server and uses TCP Port 22.

Related Content

6.3.6 Well-Known Ports

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Question 10

✓ Correct

A managed service company works with a client to enumerate and gather all the detailed events, errors, and notifications produced from various network devices. What solution would the company suggest in this particular case?

- ☐ Remote Desktop Protocol
- ☐ Load balancer
- ☐ AAA server
- ☒ Syslog appliance ✓ Correct

Explanation

Syslog is an example of a protocol and supporting software that facilitates log collection. It has become a de facto standard for logging events from distributed systems. A Syslog collector usually listens on UDP port 514.

Remote Desktop Protocol (RDP) is Microsoft's protocol for operating remote GUI connections to a Windows machine. RDP uses TCP port 3389.

An authentication, authorization, and accounting (AAA) server is the authentication server positioned within the local network. With AAA, the network access appliances do not store any authentication credentials.

A load balancer distributes client requests across server nodes in a farm or pool. A technician can use it when multiple servers provide the same function.

Related Content

7.1.11 Network Monitoring Servers

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Question 11

— Partial

What characteristics of Wi-Fi 5 (802.11ac) allow for increased bandwidth and support for modern networks? (Select three.)

☒ Downlink MU-MIMO ✓ Correct

☒ Designed to work in both the 2.4 GHz and 5 GHz bands ✗ Incorrect

☒ Typically supports up to four simultaneous clients ✓ Correct

☐ Designed to work only in the 5 GHz band ✓ Correct

Explanation

Wi-Fi 5 works only in the 5 GHz band. A dual-band access point can use its 2.4 GHz radio to support clients on legacy standards (802.11g/n), but it will not support Wi-Fi 5 on that 2.4 GHz band.


In Wi-Fi 5, downlink multi-user, multiple input, multiple output (DL MU-MIMO) allows the access point to use its multiple antennas to simultaneously send data to up to four clients.

Wi-Fi 5 allows up to eight streams, though most Wi-Fi 5 access points only support 4x4 streams in practice.

Wi-Fi 6 works in both the 2.4 GHz and 5 GHz bands. This is not a characteristic of Wi-Fi 5.

Related Content

 5.2.10 Power over Ethernet

 5.4.7 Wi-Fi 5 and Wi-Fi 6

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Question 12

✔ Correct

Remote wipe, locator apps, device encryption, remote backup, and antivirus software fall under which category of requirements for virtualized environments?

- ☐ Resource requirements
- ☐ Legacy software/OS
- ☒ Security requirements ✓ Correct
- ☐ Test development

Explanation

Security requirements are correct because all the things listed in the question refer to profile security requirements established for any system.

Resource requirements are important to consider and meet when setting up a virtualized system and network for virtualized systems to use. If the system is not designed with resource requirements in mind, it will be overwhelmed and dysfunctional.

Test development often uses virtual desktop platforms that are based on some guest OS hypervisor.

Legacy software applications and operating systems may not perform well if a user's system has been upgraded.

Related Content

8.1.5 Virtualization Security Requirements

resources\questions\pt_core1_220_1201_4_1_010.question.xml

Question 13

✔ Correct

What measures the PSU to meet the combined power requirements of the PC's components?

☒ Wattage rating ✔ Correct

☐ Redundant power supply

☐ Modular power supply

☐ Heat sink

Explanation

The wattage rating measures the power supply unit's (PSU's) output capability. Depending on the model, CPUs can range from 17 W to over 100 W. The power output is not the same as the PSU's power from grid power.

A redundant power supply requires a compatible motherboard. This configuration is more common in server systems than on desktop PCs. Typically, each PSU plugs into a backplane on a server and is hot-swappable.

A modular power supply has power connector cables that are detachable from the unit.

A heat sink is a block of copper aluminum with fins. The fins expose a larger surface area to the air around the component to achieve a cooling effect by convection.

Related Content

3.1.3 Wattage Rating

resources\questions\pt_core1_220_1201_3_6_003.question.xml

Question 14

✕ Incorrect

A company plans on upgrading a fleet of mobile phones. Upon inspection, the phones that will be retired do not utilize a SIM card. What does the company learn about the phones that have been in use?

- ☒ The phones are 4G. ✕ Incorrect
- ☐ The phones are 3G.
- ☐ The phones are CDMA. ✓ Correct
- ☐ The phones are LTE.

Explanation

3G defines Universal Mobile Telecommunications Service (UMTS) on a Global System for Mobile Communications (GSM) handset or Evolution-Data Optimized (EV-DO) on CDMA networks, working at up to around 3 Mb/s.

Code division multiple access (CDMA) means that the handset is directly managed by the provider, and there is no removable SIM card.

Long-term evolution (LTE) provides an upgrade from CDMA. All 4G and 5G cellular data connections require a SIM card.

4G phones use a SIM card and have a maximum downlink of 300 Mb/s in theory, with around 20–90 Mb/s typical of real-world performance.

Related Content

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Question 15

✔ Correct

A technician upgrades the memory in a laptop computer. Which interface does the memory have?

☒ SODIMM ✓ Correct

☐ M.2

☐ PCIe

☐ mSATA

Explanation

A smaller form factor called small outline DIMM (SODIMM) packages laptop random access memory (RAM). The memory typically fits into slots that pop up at a 45-degree angle.

A technician can provision a solid-state drive (SSD) in an adapter card form factor. These often use an M.2 interface. An M.2 port is oriented horizontally.


The mini serial advanced technology attachment (mSATA) form factor allows an SSD packaged as an adapter card to plug into the motherboard's combined data and power port.

Modern SSDs often use the peripheral component interconnect express (PCIe) bus directly. Where SATA uses the advanced host controller interface (AHCI) to communicate with the bus, PCIe-based SSDs use the non-volatile memory host controller.

Related Content

 9.3.1 Laptop Disassembly Processes

 9.3.3 RAM and Adapter Replacement

 9.3.4 Disk Upgrades and Replacement

 9.3.5 Keyboard and Security Component Replacement

resources\questions\pt_core1_220_1201_1_1_007.question.xml

Question 16

✓ Correct

How can a technician eliminate overheating as the cause of a sluggish computer?

- ☐ By touching the computer
- ☐ By checking for misconfigurations
- ☒ By checking the temperature sensor values to ensure they are normal ✓ Correct
- ☐ By running a speed test

Explanation






If the temperature is too high, the central processing unit (CPU) and other components are likely to throttle performance to avoid overheating. The technician can verify this by checking temperature sensor temps and fan speeds.

Even if the computer is not hot to the touch, it can still slow the computer down. Just touching the case to check the temperature of the CPU would not rule out temperature problems.

A slow computer can sometimes mean a network connection problem, which the technician can verify by running a speed test. This test would be appropriate after checking for temperature problems.

Misconfigurations can cause sluggish performance, but this would not help rule out overheating.

Related Content

-  3.4.5 CPU Features
-  4.2.1 Troubleshoot Power Issues
-  4.3.2 Overheating
-  4.3.4 Troubleshoot Performance Issues
-  14.4.11 Troubleshoot Performance Issues

resources\questions\pt_core1_220_1201_5_1_004.question.xml

Question 17

✔ Correct

A projector made a loud popping noise during a presentation, and then the display went out. What will fix the problem?

- ☐ Plug cables in securely.
- ☒ Use a new bulb. ✓ Correct
- ☐ Use a new HDMI cable.
- ☐ Change the display source.

Explanation

Projector bulbs have a limited lifetime and will need to be replaced periodically. The popping sound, followed by the display no longer working, points directly at a burned-out bulb as the problem.


Physical cabling problems can cause display issues, but in this case, nothing relating to the cabling changed when the display failed. Instead, it was clearly the bulb from the popping noise.

Changing the display source can fix display issues, but the display failing in the middle of a presentation does not point to the display source as the problem.

Physical cabling problems can cause display issues, and half plugged-in cables can cause intermittent display issues.

Related Content

 4.3.6 Troubleshoot Missing Video Issues

 4.3.7 Troubleshoot Video Quality Issues

resources\questions\pt_core1_220_1201_5_3_003.question.xml

Question 18

✔ Correct

A government organization wants to develop its own application to process information, but they do not want to be responsible for maintaining the hardware or the database platform that the application runs on. Additionally, the organization does not want to be burdened with maintaining the integrity and availability of the database platform because it will be very busy with other responsibilities. Which service would be best for the government organization to pursue?

- ☐ Community cloud
- ☐ Infrastructure as a service (IaaS)
- ☐ Shared resources
- ☒ Platform as a service (PaaS) ✔ Correct

Explanation

Platform as a service (PaaS) is correct. PaaS would provide IT hardware and the database platform on top of the hardware, but the customer must develop their app to run on top of the platform. The service provider will maintain the integrity and the availability of the platform for the customer.

Infrastructure as a service (IaaS) is incorrect because it will only provide IT hardware management for the customer.

Software as a service (SaaS) is incorrect because the organization will be developing its application.

Shared resources are not a service that can be purchased. Service providers can provide services using shared resources to lower the cost to the customer.

Related Content

8.2.5 Common Cloud Service Models

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Question 19

✔ Correct

A user contacts an IT help desk to report a problem with a laptop computer. The complaint is that the laptop is very hot to the touch when typing. The user also states that the laptop does not sit correctly, as the bottom of the laptop has a slight bulge. Which component does the help desk technician determine to be the problem?

- ☐ Keyboard
- ☐ SSD
- ☒ Battery ✓ Correct
- ☐ Memory

Explanation

Laptop computers use removable, rechargeable Lithium-ion (Li-ion) battery packs. Li-ion batteries are typically available in 6-, 9-, or 12-cell versions. A problematic battery can overheat and expand.

A keyboard is an input device. Therefore, a laptop keyboard does not usually overheat. However, the user noticed heat coming from the laptop in this case.

Small outline dual inline memory modules (SODIMMs) package the laptop's double data rate synchronous dynamic random access memory (DDRx SDRAM). Laptop RAM can become very hot; however, it would not cause the battery to expand.

A solid-state drive (SSD) does not get as hot as a traditional magnetic drive. Even so, an SSD would not cause the battery to expand.

Related Content

9.3.2 Battery Replacement

resources\questions\pt_core1_220_1201_1_1_008.question.xml

Question 20

✕ Incorrect

A computer has multiple hard drives installed, but the second hard drive does not show up in Windows Explorer. What is a possible problem?

☐ Cable or connector fault ✓ Correct

☐ Overheating

☐ Bad sectors

☒ Corrupted boot sector ✕ Incorrect

Explanation

Suppose the system boots, but a second fixed disk or removable drive does not appear in File Explorer. The technician should first check that the system has initialized and formatted with a partition structure and file system. If the system does not detect the disk by a configuration tool, such as Windows Disk Management, the technician will suspect that there is a hardware or cable/connector fault.


The computer booted up correctly, so a corrupted boot sector is not the problem.


Overheating is generally detected by the computer becoming hot to the touch.

Bad sectors occur when parts of a hard disk drive (HDD) fail, resulting in read/write failures and not the inability to see a hard drive in the OS.

Related Content

 4.2.5 Troubleshoot Boot Issues

 4.2.6 Lab: Troubleshoot Boot Issues

 4.2.9 Troubleshoot Drive Availability

 4.2.10 Lab: Troubleshoot Drive Availability

 14.4.8 Troubleshoot Boot Issues

resources\questions\pt_core1_220_1201_5_2_012.question.xml

Question 21

✕ Incorrect

A user replaces an older laptop that has a thin film transistor (TFT) display that uses crystals that rotate. Which TFT technology does the display use?

- ☐ Organic LED (OLED)
- ☒ Twisted nematic (TN) ✕ Incorrect
- ☐ In-plane switching (IPS) ✓ Correct
- ☐ Vertical alignment (VA)

Explanation

In-plane switching (IPS) uses crystals that rotate rather than twist. The main benefit is to deliver better color reproduction at a wider range of viewing angles.

Twisted nematic (TN) crystals twist or untwist in response to the voltage level. This is the earliest type of TFT technology and might still be found in budget displays.

Vertical alignment (VA) uses crystals that tilt rather than twist or rotate. This technology supports a wide color gamut and the best contrast-ratio performance.

In an organic LED (OLED) display, or technically an advanced matrix OLED (AMOLED), each pixel is generated by a separate LED.

Related Content

2.1.8 Display Types

resources\questions\pt_core1_220_1201_3_1_009.question.xml

Question 22

✓ Correct

Which of the following would a technician use in small, low-power motherboards?

- ☐ SAN
- ☒ ITX ✓ Correct
- ☐ ATX
- ☐ BTX

Explanation

Information technology eXtended (ITX) has two designs: the mini-ITX and the mobile-ITX. The mini-ITX is 6.7 inches square with one expansion slot. Technicians can mount most mini-ITX boards in ATX cases.

An advanced technology eXtended (ATX) specifies the standard form factor for most desktop PC motherboards.

A balanced technology eXtended (BTX) improves ATX since it has better airflow.

A storage area network (SAN) is more flexible and reliable than using local disks on each server machine. It provides access to a configurable group of storage devices that application servers can use.

Related Content

2.2.3 Motherboard CPU and System Memory Connectors



2.2.7 Motherboard Form Factors

resources\questions\pt_core1_220_1201_3_5_011.question.xml

Question 23

✕ Incorrect

An IT administrator noticed that the company needs a more secure way to create and store operating system license data. What should the IT administrator implement?

- ☐ HSM
- ☒ Secure boot ✕ Incorrect
- ☐ Boot options
- ☐ TPM ✓ Correct

Explanation

A trusted platform module (TPM) is a specification for hardware-based storage of digital certificates, cryptographic keys, and hashed passwords. They can also be used to store Windows OS keys, as seen in the Windows 11 requirements for a TPM 2.0.

A hardware security module (HSM) is a secure USB key or thumb drive used to store cryptographic material.

Secure boot is a unified extensible firmware interface (UEFI) feature designed to prevent a computer from being hijacked by malware. Under secure boot, the computer firmware configuration has cryptographic keys that can identify trusted code.

Boot options define how the system firmware searches devices for a boot manager. It is one of the most important parameters in a system setup.

Related Content

4.1.8 Trusted Platform Modules

resources\questions\pt_core1_220_1201_3_5_009.question.xml

Question 24

✕ Incorrect

What channel system requires support from the CPU, memory controller, and motherboard but not from the RAM devices?

- ☐ ECC RAM
- ☒ Triple-channel ✕ Incorrect
- ☐ Single-channel
- ☐ Dual-channel ✓ Correct

Explanation

Dual-channel memory controllers effectively have two 64-bit pathways through the bus to the CPU, meaning that they can send 128 bits of data per transfer rather than 64 bits.

Single-channel memory means that there is one 64-bit data bus between the CPU, memory controller, and RAM devices.

Technicians can use triple-channel or quad-channel memory controllers in some CPUs and supporting chipsets. If the technician does not install the full complement of modules, the system will revert to as many channels as are populated.

Technicians use error correction code (ECC) RAM for workstations and servers that require high reliability.

Related Content

3.3.5 Multi-channel System Memory

resources\questions\pt_core1_220_1201_3_3_002.question.xml

Question 25

✓ Correct

Which redundant array of independent disks (RAID) applies a strategy that is the simplest way of protecting a single disk against failure by using a mirrored drive configuration with two disks?

- ☐ RAID 10
- ☐ RAID 5
- ☐ RAID 0
- ☒ RAID 1 ✓ Correct

Explanation

RAID 1 uses two disks where each operation is duplicated on the second disk, introducing a small performance overhead. If one disk fails, the other takes over.

RAID 0 uses at least two disks. The logical volume of size is the combined total of the smallest capacity physical disk in the array. RAID 0 provides no redundancy.

RAID 5 uses striping like in RAID 0 but with distributed parity. If a single disk fails, enough information is spread across the remaining disks to reconstruct the data.

RAID 10 is a logical striped volume configured with two mirrored arrays. This configuration offers excellent fault tolerance, as one disk in each mirror can fail, and the volume will still be available.

Related Content

 3.2.5 Redundant Array of Independent Disks

 3.2.6 RAID 0 and RAID 1

 3.2.7 RAID 5 and RAID 10

resources\questions\pt_core1_220_1201_3_4_009.question.xml

Question 26

✕ Incorrect

A traveling salesperson receives an old laptop to use while a new one is on back-order. The salesperson complains that the laptop's visuals and brightness are horrible. An IT technician states that the fluorescent backlight is failing. What powers the backlight?

☐ IPS☒ TFT ✕ Incorrect☐ Digitizer☐ Inverter ✓ Correct**Explanation**

An inverter component is used to convert from the DC power supplied by the motherboard to the AC power for the bulb. Older laptops might use an inverter component to power a fluorescent backlight.

A touch screen can also be referred to as a digitizer because of the way it converts analog touch input to digital software instructions.

In-plane switching (IPS) is a display technology that uses crystals that rotate rather than twist. The main benefit is to deliver better color reproduction at a wider range of viewing angles.

In the types of flat panels used for computer and mobile device displays, the liquid crystal elements and transistors are placed on a thin film transistor (TFT).

Related Content

2.1.9 Display Components

resources\questions\pt_core1_220_1201_3_1_005.question.xml

Question 27

✕ Incorrect

What should a software development company utilize to test software applications that must operate under several different OS and resource constraints?

☐ Cross-platform virtualization ✓ Correct

☐ Test development

☐ Resource requirements

☒ Sandbox ✕ Incorrect

Explanation

Cross-platform utilization tests software applications under different OSs and resource constraints and is important to ensure the application is compatible across several different environments.

A software development company should use a sandbox to analyze viruses, worms, and Trojans in a contained environment so that the developers' systems do not become infected.

Test development often uses virtual desktop platforms based on some sort of guest OS hypervisor.

Resource requirements are important to consider and meet when setting up a virtualized system and network for virtualized systems to use. If the system is not designed with resource requirements in mind, it will be overwhelmed and dysfunctional.

Related Content

8.1.2 Uses for Virtualization

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Question 28

— Partial

An organization rolls out a security update that utilizes either a contactless smart card reader or a fingerprint scanner for login to mobile devices. What type of security implementations is the organization allowing for user logins? (Select two.)

- ☐ Bluetooth
- ☐ Wi-Fi 6
- ☐ Near-field ✓ Correct
- ☒ Biometrics ✓ Correct

Explanation



A biometric sensor allows users to record a template of a feature of their body that is unique to them. On a laptop, this is typically a fingerprint scanner.

A near-field communication (NFC) scanner is an authentication mechanism. It may also pair peripheral devices or establish a connection to a smart device.

Smart card readers do not use Bluetooth and typically connect peripheral devices to PCs and mobiles. Smart card readers also share data between two systems.

Wi-Fi 6 works in both the current 2.4 GHz and 5 GHz bands and adds support for a new 6 GHz frequency band. However, it is not applicable in this scenario.

Related Content

-  9.1.10 Near-Field Communication Wireless Connections
 -  9.3.5 Keyboard and Security Component Replacement
- resources\questions\pt_core1_220_1201_1_1_002.question.xml

Question 29

✔ Correct

A technician builds a computer using the most common form factor measuring 12 x 9.6 inches and has up to seven expansion slots. What form factor is the technician using?


☐ BTX☐ SAN☐ ITX☒ ATX ✔ Correct**Explanation**

An advanced technology extended (ATX) specifies the standard form factor for most desktop PC motherboards.

Information technology extended (ITX) has two designs: the mini-ITX and the mobile-ITX. The mini-ITX is 6.7 inches square with one expansion slot. Technicians can mount most mini-ITX boards in ATX cases.

A storage area network (SAN) is more flexible and reliable than using local disks on each server machine. It provides access to a configurable group of storage devices that application servers can use.

A balanced technology extended (BTX) improves ATX since it has better airflow.

Related Content 2.2.7 Motherboard Form Factors 3.1.1 Power Supply Units

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Question 30

✔ Correct

Sandboxes can be used to analyze viruses, worms, and Trojans. Sandboxes can also provide an isolated environment for what other important function?

- ☐ Cross-platform virtualization
- ☐ Resource requirements
- ☒ Testing and development ✓ Correct
- ☐ Legacy software/OS

Explanation

Test development often uses virtual desktop platforms based on some guest OS hypervisor.

Resource requirements are important to consider and meet when setting up a virtualized system and network for virtualized systems to use. If the system is not designed with resource requirements in mind, it will be overwhelmed and dysfunctional.

Cross-platform utilization tests software applications under different OSs and resource constraints and is important to ensure the application is compatible across several different environments.

Legacy software applications and operating systems may not perform well if a user's system has been upgraded.

Related Content

8.1.2 Uses for Virtualization

resources\questions\pt_core1_220_1201_4_1_002.question.xml

Question 31

✔ Correct

A technician replaced a failed drive in a RAID array and noticed a severely degraded performance. What is the problem?

- ☐ The controller is failing.
- ☐ There is a faulty disk.
- ☒ Rebuilding the array consumes many resources. ✓ Correct
- ☐ There is a cable problem.

Explanation

After replacing the failed disk in the redundant array of independent disks (RAID) array, the performance of the array degrades for some time since the array is rebuilding and the system is writing several gigabytes of data onto the new drive.

If the controller were failing, replacing the failed disk or boot into the RAID array would not have been possible.

A cable problem would not cause degraded performance. However, a cable problem would likely cause the system not to read the new disk at all.

The technician has already replaced the faulty disk. Furthermore, failing disks generally fail slowly over time, not immediately, causing substantial performance issues.

Related Content

4.2.11 Troubleshoot Drive Reliability and Performance

resources\questions\pt_core1_220_1201_5_2_013.question.xml

Question 32

✕ Incorrect

The TIA/EIA-568-C Commercial Building Telecommunications Cabling Standards have specific recommendations for healthcare facilities with Power over Ethernet (PoE) 802.3bt installations, and for running distribution system cables to wireless access points. Which Cat does this refer to?

- ☐ Cat 5
- ☐ Cat 5e
- ☐ Cat 6A ✓ Correct
- ☒ Cat 6 ✕ Incorrect

Explanation

Cat 6A is recommended for healthcare facilities since it supports 10 Gbps over 100m, but the cable is bulkier and heavier than Cat 5e and Cat 6. The installation requirements are more stringent.

Cat 5 cable supports the older 100 Mbps fast Ethernet standard. It is no longer commercially available, so a technician will need to rewire the network cable with Cat 5 to support Gigabit Ethernet.

Cat 5e cable supports Gigabit Ethernet links for client computers, but can now opt to install Cat 6 cable.

Cat 6 cable is more reliable than Cat 5e and supports 10 Gbps but over a reduced range.

Related Content

5.3.4 Cat Standards

resources\questions\pt_core1_220_1201_3_2_012.question.xml

Scenario

Close

Over the last few weeks, you've purchased and received the various hardware components necessary to build a home gaming computer, including expansion cards for audio and video. You are now beginning the assembly of the system components. You need to identify the proper components and place them in the correct slots.

Select the components that are NOT integrated into the motherboard:

☐

CPU Socket

CPU Socket

☐

Northbridge

Northbridge

☐

Solid State Drive (SSD)

Solid State Drive (SSD)

☐

GUI

GUI

☐

CMOS

CMOS

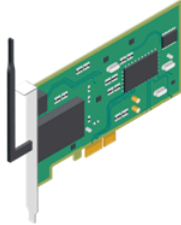
☐

Firmware

Firmware


Wireless NIC Card

PCIe x16 (v1.x)



Sound Card

PCIe x4 (v1.x)



All images (c) 123rf.com

To return this interactive to its initial state, click Reset.

Scenario

Reset

correct expansion card slot for the card listed, then use the checkboxes to select the other component(s) that are NOT integrated into the motherboard.

You must use the single dropdown selector associated with each card image to select the correct motherboard slot to place the card in. Use the checkboxes for selecting the components.

Related Content

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https://labsimapp.testout.com/v6_0_702/index.html/productviewer/1231/B.2.6/a800bace-c9bf-4c86-a98d-44cc9814074e?nonce=nOcQFpdd...

33/90

Question 34

✕ Incorrect

What issue does constant indicator LED activity imply?

- ☐ Connector fault
- ☐ Mechanical problem
- ☐ Not enough system RAM ✓ Correct
- ☒ Faulty boot sector ✕ Incorrect

Explanation

Constantly on light-emitting diode (LED) indicator lights imply disk thrashing. Disk thrashing occurs when there is not enough system random access memory (RAM), so the system continually uses the disk for paging (virtual memory). It could also signify a faulty software process or that malware has infected the system.

A faulty boot sector would display the error message, "Bootable device not found" instead of constantly on LED indicator lights.

If the device does not boot at all, a physical connection in the computer could be faulty.

Loud clicking or grinding noises as the drive is operating indicate mechanical problems with the drive. Therefore, the technician should replace the hard disk drive (HDD) as soon as possible.

Related Content

4.2.9 Troubleshoot Drive Availability



4.2.10 Lab: Troubleshoot Drive Availability

resources\questions\pt_core1_220_1201_5_2_001.question.xml

Question 35

✕ Incorrect

A penetration tester must infiltrate a company's facility to capture all the network traffic from a particular set of PCs over a physical network cable. The tester can only access the intermediate distribution frame (IDF) closets into which all devices are patched. What tool can the tester utilize to accomplish their goal?

☐ Network tap ✓ Correct☒ Cable tester ✕ Incorrect☐ Toner probe☐ Wi-Fi analyzer**Explanation**

A network tap intercepts the signals passing over a cable and sends them to a packet or protocol analyzer. Taps are either powered or unpowered. There are passive and active capture types.

A Wi-Fi analyzer records statistics for the access point (AP) that the client is currently associated with and detects any other access points in the vicinity.

A toner probe detects the signal and follows the cable over ceilings and through ducts, or identifies it from the rest of the bundle.

A basic cable tester is a pair of devices attached to each cable end. It tests a patch cord or wall ports and panel patch ports connected via patch cords to test the permanent link.

Related Content

5.3.9 Network Taps

resources\questions\pt_core1_220_1201_2_8_005.question.xml

Question 36

✕ Incorrect

A customer builds a new facility that they will mainly use to provide services for physically disabled residents. They would like to accommodate as much as possible so that residents can be more independent. What type of technology, if appropriately secured, would be a great solution to accomplish this goal?

☐ IoT ✓ Correct☐ Syslog server☒ SCADA ✕ Incorrect☐ Exchange servers**Explanation**

The Internet of Things (IoT) endpoints implement the function of a smart light bulb, refrigerator, thermostat/heating control, or doorbell/video entry phone that a user can operate and monitor remotely. Configured with the appropriate hub/control solution, this would be a proper solution.

A supervisory control and data acquisition (SCADA) system typically runs as software gathering data from and managing plant devices and equipment with embedded PLCs, referred to as field devices.

Exchange servers are mail servers that facilitate sending and receiving mail messages and also manage user mailboxes.

Syslog is an example of a protocol and supporting software that facilitates log collection. It has become a de facto standard for logging events from distributed systems.

Related Content

7.2.7 Internet of Things Devices

resources\questions\pt_core1_220_1201_2_3_008.question.xml

Question 37

✕ Incorrect

What tool can help diagnose extended read/write times?

☐ SMART ✓ Correct

☐ Pinwheel of death

☐ POST beeps

☒ RAID controller ✕ Incorrect

Explanation

The fixed disk self-diagnostic program called Self-Monitoring, Analysis, and Reporting Technology (SMART) can detect if a drive is close to failure.

A redundant array of individual disks (RAID) controller is what controls the reading and writing from a RAID array.

Power-on self-test (POST) beeps can help diagnose initial problems with hardware, but it does not give any specific information. For example, POST beeps will only indicate, "Something is wrong with xxx.", without specifics.

The pinwheel of death is the Mac OS proprietary crash screen. This crash screen indicates a problem with the operating system.

Related Content

4.2.11 Troubleshoot Drive Reliability and Performance

resources\questions\pt_core1_220_1201_5_2_007.question.xml

Question 38

✕ Incorrect

While trying to diagnose an intermittent shutdown problem, a technician watches while the user reproduces the error. Before the computer shuts down, it gives the BSOD. How is this helpful in diagnosing the problem?

- ☐ BSOD displays error codes. ✓ Correct
- ☐ BSOD indicates power supply unit (PSU) needs replacing.
- ☐ BSOD means that memory needs replacing.
- ☒ BSOD shows software corruption. ✕ Incorrect

Explanation

The blue screen of death (BSOD) is Windows proprietary crash screen. BSOD contains an error code and a QR code to the memory dump. A technician can search error codes online for more information.


A faulty power supply unit (PSU) can cause intermittent restarts, but the BSOD does not necessarily indicate that the power supply is the problem.

Memory problems can cause intermittent restarts, but the BSOD does not necessarily mean a memory problem.

Software corruption can cause intermittent restarts, but a BSOD does not necessarily mean it is software corruption. The error code on the BSOD will give further information.

Related Content

 4.2.8 Troubleshoot OS Errors and Crash Screens

 4.3.1 Troubleshoot Component Issues

resources\questions\pt_core1_220_1201_5_1_014.question.xml

Question 39

✕ Incorrect

A user is trying to mirror a computer to a large display monitor for a presentation. The computer is on, and the display reads "no input" on the screen. An HDMI cable connects the two devices. What would be the next thing to check?

☐ Change the display source. ✓ Correct

☒ Turn the display on. ✕ Incorrect

☐ Replace the bulb.

☐ Change the HDMI cable.

Explanation

The computer and the monitor display are on, and a cable connects the two. The next thing to check is to ensure the user chooses the appropriate data source. Generally, a menu on the display will change the data source to the appropriate high-definition multimedia interface (HDMI) cable.

The monitor display is already on, indicated by the "no input" on the screen.

The HDMI cable may be the problem, but the more obvious problem is that the user chose the wrong input source on the display screen.

A burned-out bulb is a problem with a light-emitting diode (LED) projector, not a large monitor display.

Related Content

4.3.6 Troubleshoot Missing Video Issues

resources\questions\pt_core1_220_1201_5_3_001.question.xml

Question 40

✕ Incorrect

An infrastructure engineer requests that a specific computer always gets a particular IP address when it connects to the network. They do not keep proper records of IP addresses, so they would rather not set the host's IP with a static address. What can the engineer use to ensure this host gets the requested address?

- ☐ DHCP lease
- ☒ DHCP scope ✕ Incorrect
- ☐ DHCP client
- ☐ DHCP reservation ✓ Correct

Explanation

A Dynamic Host Configuration Protocol (DHCP) reservation is a configuration that assigns a reserved or persistent IP address to a given host based on its hardware (MAC) address or other ID.

A DHCP lease is an address configuration assigned by a DHCP server to a client for a limited time. The client is given any available address in the current DHCP scope.

A DHCP scope is a range of consecutive IP addresses in the same subnet that a DHCP server can lease to clients.

A DHCP client is a host computer that sends a request over UDP port 68 for a DHCP server to accept and reply with an IP address configuration. The DHCP reply takes place over UDP port 67.

Related Content

6.4.1 DHCP Functions

resources\questions\pt_core1_220_1201_2_4_003.question.xml

Question 41

✕ Incorrect

What is the most up-to-date DDR RAM version that will support non-ECC and ECC types?

- ☐ DDR3
- ☐ SODIMM
- ☐ DDR5 ✓ Correct
- ☒ DDR4 ✕ Incorrect


Explanation

DDR5 is a synchronous dynamic random-access memory with a high bandwidth interface, a transfer rate of 38.4 to 51.2 GB/s, and a maximum size of 128 GB. DDR4 is a synchronous dynamic random-access memory with a high bandwidth interface, a transfer rate of 12.8 to 25.6 GB/s, and a maximum size of 32 GB. DDR3 is a synchronous dynamic random-access memory with a high bandwidth interface, a transfer rate of 6.4 to 17.066 GB/s, and a maximum size of 8 GB.

Small outline DIMM (SODIMM) is the smaller form factor packaged for laptop RAM.

Related Content

 3.3.2 RAM Types

 3.3.3 Memory Modules

resources\questions\pt_core1_220_1201_3_3_006.question.xml

Question 42

✔ Correct

What information would help diagnose an intermittent shutdown problem?

- ☐ User's contact information
- ☒ Circumstances when shutdown occurs ✓ Correct
- ☐ What the computer sounds like
- ☐ The LED status lights

Explanation

Intermittent shutdowns are difficult to pinpoint a specific cause, but with as many specifics as possible, it can narrow down the cause. For example, what the user is doing when the computer shuts down would be helpful information.


The user's contact information is important to continue to respond to a ticket, but this will not directly help diagnose the problem.

If loud noises come from the computer, this can indicate a mechanical hard drive disk failure. However, a quiet computer makes it difficult to solve the problem.

LED status lights can indicate if the machine is getting power, and some vendors have LED error codes. This does not help unless it is related to when the computer shuts down.

Related Content

 4.2.11 Troubleshoot Drive Reliability and Performance

 4.3.1 Troubleshoot Component Issues

resources\questions\pt_core1_220_1201_5_1_007.question.xml

Question 43

✓ Correct

A small shop uses a new point of sale system that allows for touchless payments. The business owner, who is not so tech-savvy, is amazed at the process. As the owner sets up the system, what technology does the system installer mention the payments use?

- ☐ Cellular
- ☐ Bluetooth
- ☒ NFC ✓ Correct
- ☐ Wi-Fi

Explanation

Many mobile devices have near-field communication (NFC) chips built in. NFC allows for very short-range data transmission. Credit card payments can use this technology.

A Bluetooth wireless radio creates a short-range personal area network (PAN) to share data with a PC, connect to a printer, and even connect to automobiles. The connection occurs through what is known as pairing.

Every laptop, smartphone, and tablet supports a Wi-Fi radio. While some automobiles also offer built-in Wi-Fi, this technology is not used to pair two devices.

Cellular data networking means connecting to the internet or services via a device's cellular radio and the phone/system network provider.

Related Content

9.1.10 Near-Field Communication Wireless Connections
resources\questions\pt_core1_220_1201_1_2_008.question.xml

Question 44

✔ Correct

A network technician installs wireless access points (APs) in an office and would like to use power over Ethernet (PoE) to power the APs. The current network infrastructure is not capable of doing this. What would the network technician need to install to augment the power requirements for PoE APs?

- ☐ Managed switch
- ☐ Firewall
- ☐ Patch panel
- ☒ Power injector ✓ Correct

Explanation

If a switch does not support PoE, a network technician can use a power injector. One port on the injector connects to the switch port. The other port connects to the device.

Firewalls have rules that list source and destination network addresses, protocol types, and whether to allow or block traffic matching the rule. This would not provide power to connected devices.

Managed switches have internal software for more advanced functionality. Though managed switches can provide power, this scenario points out that it is not available.

In most types of office cabling, the computer connects to a wall port, and via cabling running through the walls, to a patch panel. Patch panels do not provide inline power to connected devices.

Related Content

5.2.10 Power over Ethernet

resources\questions\pt_core1_220_1201_2_5_007.question.xml

Question 45

✔ Correct

A cloud service provider (CSP) works with several organizations to establish new cloud deployments that best match their needs. Each organization has similar security needs and is open to sharing resources with other organizations to save money. Which cloud deployment sounds best for the CSP's new customers?

☒ Community cloud ✔ Correct

☐ Hybrid cloud

☐ Private cloud

☐ Public cloud

Explanation

The community will be the best deployment model for the CSP's new customers. A community cloud allows several organizations to share the costs of either a hosted private or fully private cloud by pooling resources for common concerns, such as standardization and security policies.

Private cloud is incorrect because it does not allow for sharing cloud resources with organizations.

Hybrid cloud deployment is not the best choice for the CSP's new customers because the customers want to share resources full-time.

The public cloud is incorrect because the CSP's customers still want a private cloud to share with organizations with the same security concerns.

Related Content

8.2.3 Common Cloud Deployment Models

resources\questions\pt_core1_220_1201_4_2_004.question.xml

Question 46

✕ Incorrect

A user is trying to send the audio and video from their computer to a large panel display, but the audio will not play through the large display. The user has a VGA cable connected to the display. What would fix this problem?

- ☐ Change to an HDMI cable. ✓ Correct
- ☐ Change the audio source in the OS.
- ☐ Adjust the speaker volume.
- ☒ Unmute the large display. ✕ Incorrect

Explanation

A video graphics array (VGA) cable does not carry audio. If the ports allow it, changing to a high-definition multimedia interface (HDMI) cable is the easiest solution.

If the speaker volume is too low, either on the computer or on the display, that could be the problem. However, the VGA cable is not capable of sending audio.

When correctly cabled, there are several ways that audio can be muted, and all must be checked.

When correctly cabled, the audio source may need to be changed in the OS to have the correct output.

Related Content

4.3.7 Troubleshoot Video Quality Issues

resources\questions\pt_core1_220_1201_5_3_012.question.xml

Question 47

✔ Correct

A gamer wants to connect a headset to a new gaming laptop. What connection options does the gamer have? (Select three.)

☐ Nib☒ Bluetooth ✔ Correct☒ 3.5 mm jack ✔ Correct☒ USB ✔ Correct**Explanation**

A Bluetooth wireless radio creates a short-range personal area network (PAN) to share data with a PC, connect to a printer, and connect to peripherals such as headsets. The connection occurs through what is known as pairing.

A USB connection is a popular connection for many computer peripherals. This includes mice, keyboards, headsets, gamepads, and more.

A 3.5 mm jack is a standard headphone/speaker jack size found in audio headsets, headphones, microphones, and more.

A nib is not a connector type. Touch pens designed for use with drawing pads have removable and changeable nibs for use as different pen/brush types.

Related Content 9.1.2 Mobile Device Wired Connection Methods 9.1.9 Bluetooth Wireless Connections

resources\questions\pt_core1_220_1201_1_2_009.question.xml

Question 48

✕ Incorrect

A RAID array cannot boot, and the technician cannot reach the configuration utility. There have been no recent changes to the array. What is the likely problem?

☐ Controller failure ✓ Correct

☐ Disk failure

☒ Misconfiguration ✕ Incorrect

☐ Failed RTC battery

Explanation

If the redundant array of independent disks (RAID) array cannot boot, the first step is to use the configuration utility to verify the status. If the system cannot reach it, then the controller likely failed.

Single disk failure would not stop the booting process from happening. RAID arrays operate so that a single disk can fail and not cause any data loss.

Misconfiguration can always be a problem, but no recent changes occurred in this case. If it was booting fine before and no configurations have changed, then misconfiguration is highly unlikely to be the problem.

A failed real-time clock (RTC) battery will cause an incorrect date or time but will not stop a RAID array from booting.

Related Content

4.2.12 Troubleshoot RAID Failure

resources\questions\pt_core1_220_1201_5_2_005.question.xml

Question 49

✓ Correct

A large store chain is eager to reduce the cost of maintaining its servers but is unsure what the best method would be for its use case. The major requirements for the chosen solution are that the store chain needs to own its cloud infrastructure (without sharing with another organization) to maintain maximum privacy and security of the data. Which cloud computing option best meets the store chain's major requirements?

- ☐ Hybrid cloud
- ☐ Public cloud
- ☐ Community cloud
- ☒ Private cloud ✓ Correct

Explanation

The private cloud meets the store chain's two major requirements because it gives organizations greater control over the privacy and security of its data stored in the cloud.

The public cloud is incorrect because there are risks regarding performance and security. The public cloud is a shared resource with other organizations, and a cloud service provider (CSP) runs it.

A hybrid cloud is incorrect because some cloud functions can be done via a public cloud, creating potential vulnerabilities to privacy and security.

Community cloud is incorrect because it requires the store chain to share a hosted private or fully private cloud with other organizations.

Related Content

8.2.3 Common Cloud Deployment Models

resources\questions\pt_core1_220_1201_4_2_001.question.xml

Question 50

✕ Incorrect

An important part of testing a new application is running it under several different OSs and resource constraints so the developer can be sure it will work for all customers regardless of their system. What term is used to identify the application testing described in this question?

- ☐ Test development
- ☐ Cross-platform virtualization ✓ Correct
- ☒ Sandbox ✕ Incorrect
- ☐ Resource requirements

Explanation

Cross-platform utilization tests software applications under different OSs and resource constraints and is important to ensure the application is compatible across several different environments.

A sandbox is an isolated environment to analyze viruses, worms, and Trojans in a space that prevents the researcher's computer and network from becoming infected.

Test development often uses virtual desktop platforms based on some guest OS hypervisor.

Resource requirements are important to consider and meet when setting up a virtualized system and network for virtualized systems to use. If the system is not designed with resource requirements in mind, it will be overwhelmed and dysfunctional.

Related Content

8.1.2 Uses for Virtualization

resources\questions\pt_core1_220_1201_4_1_005.question.xml

Question 51

✕ Incorrect

IT systems administrators for a company have been busy configuring a fleet of new smartphones for users. Instructions that the administrators follow to configure the devices include using a host address and entering a domain as an optional parameter. Which corporate email service does the company use?

☒ Google Workspace ✕ Incorrect

☐ Microsoft Exchange ✓ Correct

☐ Microsoft 365

☐ Gmail

Explanation

To manually configure a Microsoft Exchange account, parameters such as a host address as well as the choice of whether to use transport layer security (TLS) are required. There is often also an optional field for a domain, but this is usually left blank.

A Microsoft digital identity is used to access cloud subscriptions for the Office productivity software suite and the OneDrive cloud storage service, which are known as Microsoft 365. The configuration only uses a username and password.

With Google Workspace, a Google account grants access to Google's Workspace productivity software and other Google services. This configuration does not use a domain.

A Gmail account is a free account used with the Google Workspace landscape. Configuration does not use a domain.

Related Content

 9.2.6 Enterprise Mobility Management

 20.1.3 Enterprise Mobility Management

resources\questions\pt_core1_220_1201_1_3_003.question.xml

Question 52

✓ Correct

A user notices that their laser printer is not working and is causing an error. When the technician looks at the printer, they notice that the user was using thick paper, causing a part of the printer to overheat. Which part of the printer has overheated?

- ☐ Transfer roller
- ☐ Pickup roller
- ☐ Developer roller
- ☒ Fuser unit ✓ Correct

Explanation

The paper passes through the fuser assembly after passing through the transfer assembly. The fuser unit squeezes the paper between a hot roller and a pressure roller so that the toner melts onto the paper's surface.

The transfer roller applies a positive charge to the underside of the paper. This causes the toner on the drum to be attracted to the paper. This prevents the paper from sticking to the drum or curling as it enters the fuser unit.

The pickup roller turns against the paper stack, pushing the paper into a feed and separation roller assembly.

The developer roller is a magnetized roller located very close to the photosensitive drum.

Related Content

resources\questions\pt_core1_220_1201_3_8_009.question.xml

Question 53

✕ Incorrect

A printer allows connection to a network through the infrastructure mode. Which of the following connections is the printer most likely using when referring to an infrastructure mode connection?

- ☐ Ethernet
- ☐ Duplex Unit
- ☒ USB ✕ Incorrect
- ☐ Wireless ✓ Correct

Explanation

Wireless has two interfaces: Bluetooth and Wi-Fi. Bluetooth allows access by using the print device control panel to make it discoverable. Then, the Bluetooth page adds the device.

USB connects the device plug to the printer's USB port and the host plug to a free port on the computer.

An engineer can configure Ethernet to obtain an Internet Protocol (IP) configuration from a Dynamic Host Configuration Protocol (DHCP) server or they can manually configure this.

Engineers use duplex units for double-sided printing and a finisher unit for folding, stapling, and hole punching.

Related Content

10.1.3 Print Device Connectivity

resources\questions\pt_core1_220_1201_3_7_002.question.xml

Question 54

✕ Incorrect

A company offers a bring your own device (BYOD) program at work. Several users approach the company in an effort to receive reimbursement for changing personal phones to the company's carrier. This will be done by swapping out a subscriber identity module (SIM) card in devices with which network type?

☒ CDMA ✕ Incorrect☐ HSPA☐ LTE ✓ Correct☐ NFC**Explanation**

Long-term evolution (LTE) provides an upgrade from CDMA. All 4G and 5G cellular data connections require a SIM card.

Code division multiple access (CDMA) means that the handset is directly managed by the provider, and there is no removable SIM card.

High Speed Packet Access (HSPA) provides improved data rates on GSM networks.

Near-field communications (NFC) allow a mobile device to use a close-range service such as contactless payments.

Related Content 9.2.6 Enterprise Mobility Management 20.1.3 Enterprise Mobility Management

resources\questions\pt_core1_220_1201_1_3_011.question.xml

Question 55

✓ Correct

While trying to resolve an issue with a computer that will not boot, a technician notices that the monitor's LED indicators are not on. Both devices plug into the same power strip. What could be the problem?

☒ The power strip is off. ✓ Correct

☐ There is a wider power failure.

☐ The PSU cable is not plugged in.

☐ The PSU is not working.

Explanation

Although the other answers are plausible reasons why a computer may not get power, the details in the scenario point towards a simple answer: the power strip is likely off, or the outlet is not working.

A wider power failure would explain why the computer is not booting, but there is no indication that the lights are off in the room.

An unplugged cable or a cable not completely plugged in should be the first thing to check. However, since the monitor is also not getting power, this is unlikely the cause.

The power supply unit (PSU) not working would be the last thing to investigate. The technician needs to eliminate the simpler answers first.

Related Content

 4.2.1 Troubleshoot Power Issues

 4.3.3 Physical Damage

resources\questions\pt_core1_220_1201_5_1_003.question.xml

Question 56

✕ Incorrect

An employee uses a device that gives them authentication to release the print job. What is this device?

☒ Print server ✕ Incorrect

☐ User authentication

☐ Badging ✓ Correct

☐ Audit log

Explanation

Badging means the print device has a smart card reader. An employee must present an ID badge to the reader to start the print job.

A print server is a hardware and firmware that allows client computers to connect directly over the network without going via a server computer.

An audit log can identify printed documents that have gone missing or identify the unauthorized release of information.

A company can configure user authentication on a print share. User authentication means that the printer-sharing server or print device will only accept print jobs from authorized user accounts.

Related Content

resources\questions\pt_core1_220_1201_3_7_007.question.xml

Question 57

✔ Correct

What are the manufacturer's specific recommendations for cleaning and maintaining laser printers? (Select two.)

- ☐ Use a compressed air blaster.
- ☒ Use a toner-safe vacuum. ✔ Correct
- ☒ Wipe with a soft cloth. ✔ Correct
- ☐ Use a domestic vacuum.

Explanation

Wipe dust and toner away from the printer's interior or exterior with a soft cloth. The soft cloth can be damp to clean the exterior surface.

Use a toner-safe vacuum to get rid of the printer's interior or exterior dust.

A technician should not use a compressed air blaster to clean a laser printer since it risks blowing the toner dust into the room.

A technician should not use a domestic vacuum cleaner because the toner is conductive and can damage the motor. Toner is also so fine that it will pass straight through the dust collection bag and back into the room.

Related Content

 10.2.1 Laser Printer Imaging Process

 10.2.2 Laser Printer Maintenance

 10.2.4 Inkjet Printer Maintenance

resources\questions\pt_core1_220_1201_3_8_008.question.xml

Question 58

✕ Incorrect

This part of an IP address configuration allows a host to communicate with a remote network, most notably the Internet. Otherwise, the host will only communicate with the local network without this.

- ☐ APIPA address
- ☐ Gateway address ✓ Correct
- ☐ DNS address
- ☒ Static address ✕ Incorrect


Explanation

The default gateway is the IPv4 router address, such as 192.168.0.1. This setting is not compulsory, but failure to enter a gateway would limit the host to only communicate on the local network.

DNS addresses provide resolution of host and domain names to their IP addresses and are essential for locating resources on the internet.

Using static addressing requires an administrator to visit each computer to enter the configuration information for that host manually.

When a host uses an APIPA address, it can communicate with other hosts on the same network using APIPA. Still, it cannot reach other networks or communicate with hosts who have obtained a valid DHCP lease.

Related Content 6.2.9 IPv4 Forwarding 6.2.11 IPv4 Host Address Configuration

resources\questions\pt_core1_220_1201_2_6_004.question.xml

Question 59

✔ Correct

Which universal serial bus (USB) 2 connector is square with a beveled top that a technician can use for printers?

☒ Type B ✔ Correct

☐ Type B Micro

☐ Type B Mini

☐ Type A

Explanation

Type B connects to large devices. The connector and port are square, with a beveled top.

Type B Mini is a smaller peripheral device connector. This connector was seen on early digital cameras but is no longer widely used.

Type B Micro is an updated connector for smaller devices such as smartphones and tablets. The micro connector is distinctly flatter than the older mini type of connector.

Type A connects to the host and some types of peripheral devices. The connector and port are flat rectangle-shaped. A technician should insert the connector with the USB symbol facing up.

Related Content

 2.1.4 Universal Serial Bus Cables

 2.1.5 USB Standards

resources\questions\pt_core1_220_1201_3_2_001.question.xml

Question 60

✔ Correct

A network engineer gets a report that a growing number of wireless devices cannot obtain an IP address from the Wi-Fi network. They can see the network name (SSID), and authentication is successful, but devices say that they cannot obtain an address. What is most likely the problem?

- ☒ DHCP has no more addresses available. ✓ Correct
- ☐ There is no DNS (A) record for the devices.
- ☐ The VLAN for the wireless network cannot be accessed.
- ☐ The DHCP server has run out of reservations.

Explanation

This problem is due to the Dynamic Host Configuration Protocol (DHCP) having no more addresses available to clients. To solve this, they should extend the scope or shorten the lease time to allow for more address availability.

If users can see and authenticate to the wireless network, access to a virtual LAN (VLAN) is not the problem. The devices can communicate enough to authenticate.

Although a DHCP server may have some reservations for specific hosts, most reservations would not typically take up the entire scope. Adjusting the lease and scope would be the solution in this case.

A device would not have a domain name system (DNS) A record until it obtained an IP address.

Related Content

6.4.1 DHCP Functions

resources\questions\pt_core1_220_1201_2_4_006.question.xml

Question 61

✓ Correct

The 802.11n standard was introduced as an improvement over 802.11a/b/g standards. What characteristics of the 802.11n standard show improved connectivity and performance? (Select three.)

☒ It features the introduction of MIMO. ✓ Correct

☐ It can work only over the 5 GHz band.

☒ It can work over both 2.4 GHz and 5 GHz bands. ✓ Correct

☒ The nominal data rate is 64 Mbps per stream or 150 Mbps per stream for a 40 MHz bonded channel. ✓ Correct

Explanation


802.11n can work over both 2.4 GHz and 5 GHz. A technician can implement each band with a separate radio.

Introduced with 802.11n is increased reliability and bandwidth by multiplexing signal streams from 2-3 separate antennas. This technology is known as multiple input multiple outputs (MIMO).


The nominal data rate for 802.11n is 72 Mbps per stream, not 64 Mbps per stream, or 150 Mbps per stream for a 40 MHz bonded channel, and 802.11n access points market using Nxxx designations, where xxx is the nominal bandwidth.


802.11n works over both the 2.4 GHz and 5 GHz bands. 802.11n is also known as Wi-Fi 4.


Related Content

 5.4.3 IEEE 802.11a

 5.4.4 IEEE 802.11b/g

 5.4.5 802.11n

 5.4.7 Wi-Fi 5 and Wi-Fi 6

 5.4.8 Wi-Fi 7 (802.11be)

resources\questions\pt_core1_220_1201_2_2_008.question.xml

Question 62

✕ Incorrect

A technician has tested a computer with extended read/write times and found it to have IOPS reduced from vendor baselines. What should the technician do next?

- ☐ Replace the drive.
- ☐ Make data backups. ✓ Correct
- ☐ Change the PSU.
- ☒ Change the power cord. ✕ Incorrect

Explanation

A computer experiencing extended read/write times and a technician diagnosing it with reduced input/output operations per second (IOPS) has a failing drive. However, the drive has not yet failed, so the first thing to do is perform data backups.

Immediately replacing the drive will result in full data loss. However, the drive has not failed yet, so the technician should back up the data before replacing the drive.

The technician should replace the power supply unit (PSU) when it is overheating or not delivering consistent power.

The technician should replace a frayed power cord when the cord is no longer working.

Related Content

4.2.11 Troubleshoot Drive Reliability and Performance

resources\questions\pt_core1_220_1201_5_2_014.question.xml

Question 63

✕ Incorrect

Scenario Close

Instructions

A medium-sized company is looking to make an informed decision regarding data storage and is determining the features and benefits of each type. The options of HDD and SSD carry their own advantages and disadvantages. As an IT technician, your task is to give management an overview of storage and memory concepts so that they can make an informed decision as to which investment would be the most beneficial for the company.

Storage Device

Does device require external power to store data?

☐ Yes
☐ No

Storage Device

Does device require external power to store data?

☐ Yes
☐ No

Storage Device

Does device require external power to store data?

☐ Yes
☐ No

Storage Device

Does device require external power to store data?

☐ Yes
☐ No

Storage Device

Does device require external power to store data?

☐ Yes
☐ No

SSD

2.5" HDD

USB Stick

CPU Cache

RAM

To return this interactive to its initial state, click Reset.

Scenario Reset

Related Content

pbq1-core1.question.fex

Question 64

✔ Correct

A user has a newly issued smartphone that has corporate communication software installed. What can the user expect to sync while using Microsoft Exchange?

☒ Email ✔ Correct

☐ Contacts

☐ Texts

☐ Calendar

Explanation

Most email systems store messages on the server, and the client device is used to manage them. A client device that uses technology such as ActiveSync can store a local copy.

A contact is a record with fields for name, address, email address(es), phone numbers, notes, and more. Contacts are synced with Exchange ActiveSync.

A calendar item is a record with fields for appointment or task information, such as subject, date, location, and participants. Calendars are synced with Exchange ActiveSync.

Texts are messages that are sent via cellular service. While there are sync methods available, they are not synced with Exchange.

Related Content

 9.2.3 Types of Data to Synchronize

 9.2.4 Email Configuration Options

resources\questions\pt_core1_220_1201_1_3_008.question.xml


Question 65

— Partial


Scenario

Close

You work for a managed IT services company that has similar workstation setups across multiple client office spaces. During the normal course of business, you encounter a variety of monitor display, projector, and audio issues that you must troubleshoot. As your company takes on more clients and the number of multi-monitor setups and projector installations increases, you've been building a reference sheet for how to quickly diagnose or at least begin troubleshooting for common issues with these devices.



Stuck or dead pixels.



No image is displayed.

You will use the drop-down selectors to complete the statements or answer the questions.

To minimize cabling, audio and video can be sent over a single cable using HDMI or:

Select

A flickering image could also be caused by the display's backlight or what other component starting to fail?

Select

When working a projector makes a "pop" sound, this may be an indication of a:

Select

Calibrate color to match source.

Check for updates.

Use automatic screensavers.

Adjust brightness/contrast.

Scenario

Reset

Related Content

pbq3-core1.question.fex

https://labsimapp.testout.com/v6_0_702/index.html/productviewer/1231/B.2.6/a800bace-c9bf-4c86-a98d-44cc9814074e?nonce=nOcQFpdd...

65/90

Question 66

✔ Correct

A company is building a new office space and data center. They would like network segmentation to ensure that only certain servers and workstations can access sensitive data. What type of devices will be the foundation of that type of network?

- ☐ Ethernet hubs
- ☐ Unmanaged switches
- ☐ Firewalls
- ☒ Managed switches ✓ Correct

Explanation







Managed switches have internal software that configures security settings and chooses options for the switch's more advanced functionality, such as VLANs, to enable the segment of network devices and traffic.

Unmanaged switches perform their functions without requiring configuration. It would power on, connect to some hosts, and establish Ethernet connectivity between the network interfaces without intervention.

Ethernet hubs are legacy network hardware devices that provide multiple connections to computers in a small area and are inefficient at network management.

Firewalls have rules that list source and destination network addresses, protocol types, and whether to allow or block traffic matching the rule. Although this scenario's potential to eventually implement this exists, it would not be the foundation for the desired segmentation.

Related Content

-  5.2.3 Patch Panels
-  5.2.6 Switches
-  5.2.9 Unmanaged and Managed Switches
-  5.5.1 Network Switches
-  6.4.7 Virtual Private Networks
-  15.2.4 Group Policy and Login Scripts

resources\questions\pt_core1_220_1201_2_5_005.question.xml

Question 67

✓ Correct

Which well-known mailbox access protocols utilize mailbox servers to allow the user's client email software to retrieve messages from the mailbox? (Select two.)

☒ POP3 ✓ Correct☐ DNS☐ FTP☒ IMAP ✓ Correct**Explanation**

The Post Office Protocol (POP) is an early example of a mailbox access protocol. POP is often referred to as POP3 because the active version of the protocol is version 3.

The Internet Message Access Protocol (IMAP) is a mail retrieval protocol. Still, its mailbox management features support permanent connections to a server and connect multiple clients to the same mailbox simultaneously.

The File Transfer Protocol (FTP) allows clients to upload and download files from a network server. It uploads files to websites.

Domain Name System (DNS) allows clients to request resources using plain names rather than IP addresses.

Related Content 7.1.5 Mail Servers 7.1.6 Mailbox Servers

resources\questions\pt_core1_220_1201_2_3_003.question.xml

Question 68

✕ Incorrect

A technician researches flat-screen displays to find the perfect model for a conference room. The screen should feature a high viewing angle as the conference room is wide. Which technology does the technician look for when purchasing a flat-screen display?

☐ IPS ✓ Correct☒ OLED ✕ Incorrect☐ VA☐ LED**Explanation**

In-plane switching (IPS) uses crystals that rotate rather than twist. The main benefit is to deliver better color reproduction at a wider range of viewing angles. Most IPS panels support 178/178 degree horizontal and vertical viewing angles.

Vertical alignment (VA) uses crystals that tilt rather than twist or rotate. This technology supports a wide color gamut and the best contrast-ratio performance.

An array of light-emitting diodes (LEDs) can provide illumination in a flat panel. Most smartphone and tablet screens use edge lighting where the LEDs are at the top or bottom of the screen.

A separate LED generates each pixel in an organic LED (OLED) display, or technically, an advanced matrix OLED (AMOLED) display.

Related Content

2.1.8 Display Types

resources\questions\pt_core1_220_1201_3_1_001.question.xml

Question 69

✕ Incorrect

A company asked a network engineer to provide a solution that will allow a hosted application to be highly available if one or more servers are offline. They have plenty of resources to provide a cluster of servers that can run the application. Still, the company is looking for direction on making the application seamlessly available to customers. What solution would the engineer implement for this request?

- ☐ Spam gateway
- ☐ Load balancer ✓ Correct
- ☐ Proxy server
- ☒ Web server ✕ Incorrect


Explanation

A load balancer can distribute client requests across server nodes in a farm or pool. The company can use a load balancer in any situation where multiple servers provide the same function.

A proxy server takes a full HTTP request from a client, checks it, and then forwards it to the destination server on the internet. This activity would not be the solution for the given request.

A web server provides client access using HTTP or its secure version (HTTPS). This is likely the type of servers in the mentioned cluster hosting the application.

Spam gateways verify the authenticity of mail servers and have filters that can identify spoofed, misleading, malicious, or otherwise unwanted messages.

Related Content 7.2.1 Proxy Servers 7.2.4 Load Balancers

resources\questions\pt_core1_220_1201_2_3_004.question.xml

Question 70

✕ Incorrect

A tier one helpdesk technician receives a corporate cellphone with a broken screen. What is the first step?

- ☒ Replace the screen. ✕ Incorrect
- ☐ Open the phone to check for liquid damage.
- ☐ Replace the charging cable.
- ☐ Check if the phone is under warranty. ✓ Correct

Explanation

Mobile devices are easy to drop, and screens can crack or shatter. This is likely to require a warranty or professional services to repair it.

If there are no visible cracks, the screen or digitizer may have been damaged by liquid. But the screen is visibly cracked in this question.

Mobile devices are likely to require a warranty or professional services to replace parts, such as a broken screen. Replacing parts outside the warranty can void the contract.

If a cellphone is having trouble charging, then replacing the charging cable can help isolate the problem. There is no indication of a charging problem in the scenario.

Related Content

9.4.4 Screen and Calibration Issues

resources\questions\pt_core1_220_1201_5_4_013.question.xml

Question 71

✕ Incorrect

A user is having trouble with their laser printer and notices that the light from the laser is not shining on this part of the printer. What part of the printer has a photosensitive surface?

☒ Transfer roller ✕ Incorrect

☐ Toner

☐ Developer roller

☐ Imaging drum ✓ Correct

Explanation

An imaging drum is in the charging stage of the laser printer. The imaging drum is a round rotating cylinder conditioned by the primary charge roller (PCR).

The toner is charged with a high negative charge and applies to the drum. The laser toner consists of a fine compound of dyestuff and wax or plastic particles.

The developer roller is very close to the photosensitive drum. The toner carries the same negative charge polarity as the drum.

The transfer roller applies a positive charge to the underside of the paper. This causes the toner on the drum to be attracted to the paper.

Related Content

 10.2.1 Laser Printer Imaging Process

 10.2.2 Laser Printer Maintenance

 10.2.4 Inkjet Printer Maintenance

resources\questions\pt_core1_220_1201_3_8_006.question.xml

Question 72

✔ Correct

An on-premises data center is moving to a cloud model to take advantage of the many benefits cloud computing offers. One of the most important benefits of this specific data center is handling changes to demand in real-time without degrading services. Which of the following is the most important benefit of migrating this data center to the cloud?

☒ Rapid elasticity ✔ Correct

☐ Metered utilization

☐ Shared resources

☐ High availability

Explanation

Rapid elasticity refers to the system's ability to handle changes to demand in real-time without loss of service or performance. Rapid elasticity allows a system to reduce costs when demand is low.

Metered utilization is the per-use billing for resources consumed by the cloud, making cloud offerings cheaper or more expensive for an organization, depending on their resource consumption.

Shared resources are incorrect. To meet availability, scalability, and elasticity requirements, cloud providers must be able to provision and de-provision resources automatically through the pooling of shared resources and virtualization.

High availability means that the service experiences very little downtime. Downtime can occur as a result of scheduled maintenance and unexpected outages.

Related Content

8.2.1 Cloud Characteristics

resources\questions\pt_core1_220_1201_4_2_011.question.xml

Question 73

✕ Incorrect

What causes a mobile device battery to swell?

- ☐ Under-powered adapter
- ☐ Faulty charging circuit ✓ Correct
- ☐ Old battery
- ☒ Improper charging routine ✕ Incorrect

Explanation

A swollen battery indicates a problem with the battery's charging circuit, which is supposed to prevent overcharging.

An improper charging routine will reduce the usable life of a battery. A Li-ion battery should not be allowed to fully discharge regularly or be kept persistently at 100% charge.

As batteries age, they will not hold a proper charge. Symptoms can be that the device will not switch on or only remains on for a few seconds.

Charging ports can be damaged by improper insertion and removal of the connectors. Signs of this are no charging or intermittent charging.

Related Content

9.4.1 Power and Battery Issues

resources\questions\pt_core1_220_1201_5_4_002.question.xml

Question 74

✕ Incorrect

A systems engineer is building a virtual machine to run a service with an 8 core CPU and 500 GB of random access memory to function properly. Where would these two hardware requirements be listed?

- ☐ Test development
- ☐ Security requirements
- ☒ Legacy software/OS ✕ Incorrect
- ☐ Resource requirements ✓ Correct

Explanation

Resource requirements are important to consider and meet when setting up a virtualized system and network for virtualized systems to use. If the system is not designed with resource requirements in mind, it will be overwhelmed and dysfunctional.

Security requirements are incorrect because the amount of central processing units (CPUs) and random access memory (RAM) a system needs will not impact the security of a system.

Legacy software/OS is incorrect because a list of legacy software and OSs would not encompass hardware like CPU and RAM.

Test development often uses virtual desktop platforms based on some guest OS hypervisor.

Related Content

resources\questions\pt_core1_220_1201_4_1_013.question.xml

Question 75

✕ Incorrect

What is the typical use for virtual desktop platforms based on guest OS hypervisor?

☒ Cross-platform virtualization ✕ Incorrect

☐ Resource requirements

☐ Legacy software/OS

☐ Testing and development ✓ Correct

Explanation

Desktop virtual platforms, usually based on guest OS, are typically used for testing and development.

Resource requirements are important to consider and meet when setting up a virtualized system and network for virtualized systems to use. If the system is not designed with resource requirements in mind, it will be overwhelmed and dysfunctional.

Cross-platform utilization tests software applications under different OSs and resource constraints and is important to ensure the application is compatible across several different environments.

Legacy software applications and operating systems may not perform well if a user's system has been upgraded.

Related Content

8.1.2 Uses for Virtualization

resources\questions\pt_core1_220_1201_4_1_009.question.xml

Question 76

✕ Incorrect

What features of the cloud allow multiple users to simultaneously access content and work collaboratively while tracking edits by each user?

☐ File synchronization ✓ Correct

☐ High availability

☒ Shared resources ✕ Incorrect

☐ Community cloud

Explanation

File synchronization is an advantage of cloud storage that replicates files between data centers and different devices such as PCs and smartphones. Cloud storage also allows multiple users to access content and work collaboratively simultaneously.

To meet availability, scalability, and elasticity requirements, cloud providers must be able to provision and de-provision resources automatically through the pooling of shared resources and virtualization.

A community cloud is a cloud environment deployed for shared use by cooperating tenants. These tenants usually have similar security and operating concerns.

High availability means that the service experiences very little downtime. Downtime can occur because of scheduled maintenance and unexpected outages.

Related Content

2.2.4 Motherboard Storage Connectors



3.2.3 Solid-State Drives



3.2.11 Optical Drives



4.2.13 Troubleshooting Problems with Storage Drives & RAID Arrays



8.2.7 Cloud File Storage



12.4.2 Storage



15.2.2 Windows Domains and Active Directory



21.1.4 Backup Media Requirements

Question 77

✔ Correct

A smartphone user tries to connect a new set of earbuds. What is the first step that the user does with the phone?

- ☒ Enable Bluetooth. ✓ Correct
- ☐ Perform a PRL update.
- ☐ Find a device for pairing.
- ☐ Enable pairing.

Explanation

A Bluetooth wireless radio creates a short-range personal area network (PAN) to share data and connect to peripherals. Bluetooth needs to be enabled before pairing can begin.

To connect a peripheral device via Bluetooth, the Bluetooth radio on each device must be put into discoverable mode, which is also known as pairing mode.

Once a phone has Bluetooth and pairing mode enabled, a list of nearby devices will be listed for connecting. Selecting a device will begin the pairing process.

Information that a cellular radio needs to connect to a network is provided as a preferred roaming list (PRL). An update would update the list.

Related Content

9.1.9 Bluetooth Wireless Connections

resources\questions\pt_core1_220_1201_1_3_004.question.xml

Question 78

✔ Correct

A startup company does not have the funds or the time to buy and configure its computer resources, so it pays a service provider to deploy IT resources such as servers, load balancers, and storage components. What service is the startup company paying for?

- ☐ Shared resources
- ☒ Infrastructure as a service (IaaS) ✓ Correct
- ☐ Platform as a service (PaaS)
- ☐ Software as a service (SaaS)

Explanation

Infrastructure as a service (IaaS) is correct. IaaS is a means of provisioning IT hardware and the internet links they require, as needed, from a service provider's data center.

Software as a service (SaaS) is incorrect. SaaS is a means of purchasing software licenses for a given number of users and does not include IT hardware resources.

Platform as a service (PaaS) is incorrect. PaaS is incorrect because the question does not mention that the company needs IT hardware resources and multi-tier web applications and database platforms on top of the provided IT hardware resources.

Shared resources are not a service that can be purchased. Service providers can provide services using shared resources to lower the cost to the customer.

Related Content

8.2.5 Common Cloud Service Models

resources\questions\pt_core1_220_1201_4_2_005.question.xml

Question 79

✔ Correct

This protocol makes a secure connection to display the graphical interface of another computer and uses TCP port 3389.

- ☐ Simple Network Management Protocol
- ☒ Remote Desktop Protocol ✓ Correct
- ☐ Trivial File Transfer Protocol
- ☐ Server Message Block

Explanation





Remote Desktop Protocol (RDP) makes a secure connection to the graphical desktop of a remote computer and uses TCP port 3389.

Simple Network Management Protocol (SNMP) queries status information from network devices and uses UDP port 161. SNMP traps information sent to a management server utilizing UDP port 162.

Server Message Block (SMB) is the application protocol underpinning file and printer sharing on Windows networks. SMB usually runs directly over TCP port 445.

Trivial File Transfer Protocol (TFTP) is a simplified form of FTP supporting only file copying and uses UDP port 69.

Related Content

-  6.3.6 Well-Known Ports
-  7.1.1 File/Print Servers
-  7.1.9 Remote Terminal Access Servers
-  14.2.1 Remote Desktop Tools

resources\questions\pt_core1_220_1201_2_1_003.question.xml

Question 80

✕ Incorrect

While planning a new virtual environment, a systems engineer noted that one virtual machine (VM) would run a Windows OS and store two snapshots at all times. The VM will need to have at least 80 GB in its hard disk drive for the VM to function properly. What is the systems engineer considering when planning this aspect of the new virtual environment?

☐ Resource requirements ✓ Correct☐ Test development☒ Legacy software/OS ✕ Incorrect☐ Security requirements**Explanation**

Resource requirements are important to consider and meet when setting up a virtualized system and network for virtualized systems to use. If the system is not designed with resource requirements in mind, it will be overwhelmed and dysfunctional.

Security requirements are incorrect because the amount of central processing units (CPUs) and random access memory (RAM) a system needs will not impact the security of a system.

Legacy software applications and operating systems may not perform well if a user's system has been upgraded.

Test development often uses virtual desktop platforms based on some sort of guest OS hypervisor.

Related Content

resources\questions\pt_core1_220_1201_4_1_006.question.xml

Question 81

✓ Correct

A remote support technician is speaking with a new rural business client who has issues with their internet connection. As the remote technician gathers information for a local technician to visit the site, the user mentions that the local tech referred to their connection as the "local loop" and the "last mile." What device would the remote technician conclude that they use to connect to the internet?

- ☐ Wi-Fi access points
- ☐ Cable modem
- ☒ DSL modem ✓ Correct
- ☐ Optical network terminal

Explanation

A digital subscriber line (DSL) uses higher frequencies in copper telephone lines from the "last mile" or "local loop" of plain old telephone systems (POTS) as a communications channel. A DSL modem interfaces between telephone lines and local networking devices, providing routing and internet connection.

A cable modem is a cable-internet-access digital modem using a coaxial connection to the service provider's fiber-optic core network. This connection is not typical in rural areas.

Wi-Fi access points provide connectivity for devices to the internet; they depend on local routing for internet connection. Modems typically do this routing.

An optical network terminal (ONT) converts between optical and electrical signaling to facilitate full fiber internet connection types. This is not typical in rural communities.

Related Content

 6.1.1 Internet Connection Types and Modems

 6.1.2 Digital Subscriber Line Modems

resources\questions\pt_core1_220_1201_2_5_002.question.xml

Question 82

✕ Incorrect

A technician responds to a computer intermittently shutting down and finds that the tower has a personal heater blowing on it. What is a likely problem?

☐ Overheating ✓ Correct

☒ Unstable power supply ✕ Incorrect

☐ Malware

☐ Hard drive failure

Explanation

The computer is overheating. Even with all the fans working properly, computers cannot have personal space heaters blowing directly on them. Redirecting the heater should resolve the problem.

Intermittent shutdowns can be an indicator of malware, but the physical details in this example do not point to malware as the problem.

A power supply unit (PSU) that is not delivering stable power can cause intermittent shutdowns, but this does not seem to be the problem here. Instead, the space heater is the apparent problem.

Hard drive failure can result in intermittent shutdowns and is diagnosed with OS tools, such as the `chkdsk` command. However, this is unlikely to be the problem in this case.

Related Content

3.4.5 CPU Features



4.2.1 Troubleshoot Power Issues



4.3.2 Overheating



4.3.4 Troubleshoot Performance Issues



14.4.11 Troubleshoot Performance Issues

resources\questions\pt_core1_220_1201_5_1_005.question.xml

Question 83

✕ Incorrect

A technician works on a faulty unit and needs to remove and replace a power supply unit (PSU) without opening the case and without the server losing power. What is this configuration?

☐ Redundant power supply ✓ Correct

☒ Modular power supply ✕ Incorrect

☐ Liquid-base cooling system

☐ Open-loop system

Explanation

A redundant power supply requires a compatible motherboard. This configuration is more common in server systems than on desktop PCs. Typically, each PSU plugs into a backplane on a server and is hot-swappable.

A modular power supply has power connector cables that are detachable from the unit.

A liquid-based cooling system refers to a system of pumping water around the chassis. Water is a more effective coolant than air convection, and a good pump can run more quietly than numerous fans.

An open-loop system will usually need draining, cleaning, and refilling periodically. The fans and radiators need to be kept dust-free. The technician should drain the system prior to moving the PC to a different location.

Related Content

 3.1.4 Power Supply Connectors

 3.1.7 Redundant Power Supplies

resources\questions\pt_core1_220_1201_3_6_001.question.xml

Question 84

✓ Correct

What software on a client's computer allows a device and printer to connect over a network?

- ☐ Audit log
- ☐ Secured prints
- ☒ Print server ✓ Correct
- ☐ Printer share

Explanation

A printer server can be used as a hardware device, embedded system, or software application by using firmware or software to manage print jobs and enable connections over the internet or a local network.

The print share model describes how multiple client devices access the printer. Ordinary users can connect to a network printer if the print server administrator grants permission to use it.

Secured print is held on the print device until it authenticates directly with the print devices. This mitigates the risk of intercepting confidential information from the output tray before the user has had time to collect it.

An audit log can identify printed documents that have gone missing or identify the unauthorized release of information.

Related Content

 10.1.8 Printer Sharing

 15.3.4 Printer Sharing

resources\questions\pt_core1_220_1201_3_7_006.question.xml

Question 85

— Partial

What are the main components of authentication, authorization, and accounting that securely and adequately connect devices to a network? (Select three.)

☒ AAA server ✓ Correct

☒ DHCP server ✗ Incorrect

☒ Network access server/point ✓ Correct

☐ Supplicant ✓ Correct

Explanation

The supplicant is the device requesting access, such as a user's PC or laptop.

Network access servers (NAS) or network access points (NAP) are network access appliances, such as switches, access points, and VPN gateways. These are also called AAA clients or authenticators.

The AAA server is the authentication server positioned within the local network. With AAA, the network access appliances do not store any authentication credentials.

The Dynamic Host Configuration Protocol (DHCP) server issues network configuration to clients to communicate on the network. This is not a part of the AAA process specifically.

Related Content

7.1.8 Directory and Authentication Servers

resources\questions\pt_core1_220_1201_2_3_005.question.xml

Question 86

✔ Correct

A computer is not displaying any content on the screen, and it makes continuous beeps after booting. What is the likely problem?

☒ System memory problem ✔ Correct

☐ Keyboard issue

☐ Faulty screen

☐ Power supply error

Explanation

Not all modern computers use power-on self-test (POST) beep codes, but it is a valuable diagnostic tool. For example, the continuous beep code indicates a problem with system memory modules or memory controllers. This problem can stop the computer from booting or from displaying properly.

The system will indicate a keyboard issue with three long beeps, and the technician can generally solve it by removing whatever is depressing a key.

A faulty screen would result in a blank screen, but it does not give the POST beep code.

A power supply error results in either repeating short beeps or the computer failing to initiate POST at all.

Related Content

4.2.3 Troubleshoot POST Issues

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Question 87

✕ Incorrect

A user calls to report that they cannot connect to the internet and various other internal resources from their laptop. After a technician asks them what IP address their Windows laptop has, they report it has an address of 169.254.0.115. What problem is the user's laptop having?

- ☐ The laptop has a Class A private address.
- ☒ The laptop has a misconfigured static IP address. ✕ Incorrect
- ☐ The laptop has a misconfigured default gateway address.
- ☐ The laptop cannot get an address from the DHCP server. ✓ Correct

Explanation

Automatic private IP addressing (APIPA) is a mechanism for Windows hosts to obtain an address automatically that cannot contact a DHCP server to revert to using an address from the range 169.254.x.y. This is also called a link-local address.

Using static addressing requires an administrator to visit each computer to enter the configuration information for that host manually. This IP would likely not be statically assigned.

10.0.0.0 to 10.255.255.255 is a Class A private address range.

The default gateway parameter is the IPv4 address of a router. If the laptop cannot contact a DHCP server, it will not get a default gateway at all.

Related Content

6.2.12 Static Versus Dynamic Host Address Configuration
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Question 88

✕ Incorrect

A startup company does not have the capital to invest in infrastructure to host its website, nor does it have the capital to hire engineers to manage its cloud environment. At this point, strict access control is not a concern for the startup, but they do not want to share resources with other organizations. Which cloud implementation will best suit the startup's needs?

☐ Public cloud ✓ Correct☐ Community cloud☒ Private cloud ✕ Incorrect☐ Hybrid cloud**Explanation**

Public cloud will best meet the startup's needs because it offers subscriptions and pay-as-you-go finances and can even provide lower-tier services free of charge. Public clouds are also offered over an internet connection by cloud service providers (CSPs).

Private cloud is unnecessary for the startup's use case because it does not require strict access control in its operations.

Community cloud is incorrect because the startup does not want to share resources with other organizations.

A hybrid cloud is not the best answer because there is potential for resources to be shared among multiple organizations and the requirement to maintain data on-premises, which the startup cannot afford.

Related Content

8.2.3 Common Cloud Deployment Models

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Question 89

✕ Incorrect

What type of printer uses a heating element to create the image on the paper?

- ☐ Laser
- ☐ Thermal ✓ Correct
- ☒ Impact ✕ Incorrect
- ☐ Inkjet

Explanation

A thermal printer is a general term for any device that uses a heating element to create paper images. Thermal printers have a heat-sensitive print that the paper is friction-fed through the print mechanism when in the feed assembly.

Laser printers are the most popular printer technologies for office applications because they are inexpensive, quiet, and fast.

Inkjet printers typically create good-quality color output, such as photo printing. Inkjet is cheap to buy but expensive to run.

The Impact printer strikes an inked ribbon against the paper to leave marks. The most common type is the dot matrix printer.

Related Content

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Question 90

✕ Incorrect

What software delivery method enables programmers and application administrators to ensure that the application used by clients is always updated with the latest code?

☐ Application virtualization ✓ Correct

☒ Legacy software/OS ✕ Incorrect

☐ Cross-platform virtualization

☐ Sandbox

Explanation

Application virtualization is a software delivery method that enables programmers and application administrators to ensure that clients' applications are always updated with the latest code.

Cross-platform utilization tests software applications under different OSs and resource constraints and is important to ensure the application is compatible across several different environments.

A sandbox is an isolated environment to analyze viruses, worms, and Trojans in a space that prevents the researcher's computer and network from becoming infected.

Legacy software applications and operating systems may not perform well if a user's system has been upgraded.

Related Content

8.1.2 Uses for Virtualization

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