

## 220-1201 Dumps

### CompTIA A+ Certification Exam: Core 1

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**NEW QUESTION 1**

- (Topic 1)

A technician is troubleshooting internet connectivity issues after a firewall update. Users report that they can access local network resources, such as printers and shares, but cannot access the internet. Which of the following settings is most likely causing the issue?

- A. Static IP assignments
- B. Default gateway
- C. Subnet mask
- D. VLANs

**Answer: B**

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

If users can access local network resources but not the internet, the most likely culprit is a misconfigured or missing default gateway. The default gateway routes traffic from the local network to external networks (i.e., the internet). If it's not properly set or was altered during a firewall update, internet traffic won't be forwarded correctly.

? Option A: Static IPs could cause conflict, but wouldn't affect only external access if configured correctly.

? Option C: An incorrect subnet mask could isolate devices, but local communication would likely be impacted too.

? Option D: VLANs segment networks; while misconfigured VLANs could cause access issues, they'd more likely isolate local traffic as well.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 2.6: Given a scenario, configure and troubleshoot network connectivity.

**NEW QUESTION 2**

- (Topic 1)

A network administrator must ensure that a printer will still be assigned a specific IP address even if all addresses are depleted. Which of the following network configuration concepts is this describing?

- A. VLAN
- B. Lease
- C. Reservation
- D. Exclusion

**Answer: C**

**Explanation:**

Comprehensive and Detailed Explanation From Exact Extract:

A DHCP reservation binds a specific MAC address to an IP address so the device always receives the same IP from the DHCP server. This ensures network devices like printers maintain consistent connectivity and availability even when the IP pool is low.

Reference: "CompTIA A+ Complete Study Guide" by Quentin Docter – Chapter 18, page 1252.

**NEW QUESTION 3**

- (Topic 1)

A human resources department uses a network shared with other departments to produce a variety of printed resources for legal retention. The human resources department only wants its members to have access to these materials. Which of the following should the technician implement?

- A. Security groups
- B. Audit logs
- C. Time-of-day access
- D. Print server

**Answer: A**

**Explanation:**

Security groups are used to manage access permissions to network resources, ensuring only authorized HR department members can access the shared materials.

Why Not B (Audit logs): Audit logs monitor activity but do not restrict access.

Why Not C (Time-of-day access): Time-of-day access limits when users can access resources but doesn't specify user permissions.

Why Not D (Print server): A print server manages print jobs but does not control file access. CompTIA A+ Exam Reference: Core 2 (220-1102), Section 2.5, access control and permissions.

**NEW QUESTION 4**

- (Topic 1)

Which of the following involves installing an application on a server so several users can run the application concurrently without the need for local installation?

- A. Client virtualization
- B. Software as a service
- C. Sandboxing
- D. Embedded software

**Answer: A**

**Explanation:**

Client virtualization involves installing an application on a server and enabling multiple users to run the application simultaneously via virtualized sessions. This eliminates the need for individual installations on local machines.

Why Not B (Software as a Service): SaaS delivers software over the internet and does not require local installations but is managed by a third party, not the organization itself.

Why Not C (Sandboxing): Sandboxing is for isolating applications for security testing, not for concurrent user access.  
Why Not D (Embedded software): Embedded software is installed on hardware devices, not shared across multiple users.  
CompTIA A+ Exam Reference: Core 1 (220-1201), Section 4.2, virtualization concepts.

**NEW QUESTION 5**

- (Topic 1)

Several storms cause mission-critical servers to go offline unexpectedly. A server also goes offline suddenly due to hardware failure. Upon assessment, the company purchases new UPSs to condition power and allow the OSs to shut down gracefully in the event of a power failure. However, the UPSs are delayed due to supply chain issues. Which of the following can balance a cost-effective solution with uptime requirements?

- A. Purchasing backup generators
- B. Increasing input voltage
- C. Installing redundant PSUs
- D. Activating a hot site

**Answer: C**

**Explanation:**

\* C. Installing redundant PSUs (Power Supply Units):

Redundant PSUs provide fault tolerance by ensuring that if one power supply fails, another will take over seamlessly.

This is a cost-effective way to increase uptime while waiting for the UPSs to arrive. Incorrect Options:

\* A. Purchasing backup generators: Generators are costly and are typically used for long-term outages, not as an immediate or cost-effective solution.

\* B. Increasing input voltage: This is not a practical solution to hardware failures or power issues.

\* D. Activating a hot site: A hot site is an expensive, fully operational backup facility that would not be a cost-effective solution for this scenario.

Key Takeaway: Installing redundant PSUs is a cost-effective way to balance uptime requirements in case of power or hardware failure.

Reference: CompTIA A+ Core 1 Exam Objectives (220-1201), Domain 5.3 – Power-related troubleshooting.

**NEW QUESTION 6**

- (Topic 1)

Which of the following is an advantage of using a hybrid cloud instead of a public cloud?

- A. Ability to reduce management overhead
- B. Ability to use cross-platform virtualization
- C. Ability to meet data residency requirements
- D. Ability to leverage IaaS and PaaS

**Answer: C**

**Explanation:**

Comprehensive and Detailed Explanation From Exact Extract:

A hybrid cloud combines on-premises infrastructure with public cloud services. One significant advantage is that it allows organizations to keep sensitive data in a private environment to meet regulatory or data residency requirements, while still utilizing the scalability and cost-efficiency of the public cloud for other workloads. This ensures compliance with legal mandates about data location.

Reference: "CompTIA A+ Complete Study Guide" by Quentin Docter – Chapter 8, "Virtualization and Cloud Computing", page 488. Also supported in CompTIA A+ Exam

Objectives 220-1201 under section 4.1.

**NEW QUESTION 7**

- (Topic 1)

A technician is troubleshooting stylus issues on identical, company-provided tablets. Users can purchase their own accessories. Some users have no issues, but others report that their styluses charge intermittently and die frequently. Which of the following is the most likely cause of this issue?

- A. Certain cases are causing charging issues.
- B. The tablets need to be updated.
- C. Some of the tablets have manufacturing defects.
- D. The malfunctioning styluses need firmware updates.

**Answer: A**

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

The most likely cause is third-party or ill-fitting cases obstructing the contact between the stylus and the tablet charging mechanism. Some cases may not be designed with stylus charging in mind, particularly if users are purchasing their own accessories.

? Option B: A software update might fix OS-related issues, but would not typically affect physical charging.

? Option C: If some devices had defects, the issue would likely be consistent, not isolated to some users.

? Option D: Firmware issues could be a factor but are less likely than physical obstructions when users are using different accessories.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 1.4: Given a scenario, configure settings and use cases for laptops and mobile devices.

**NEW QUESTION 8**

- (Topic 1)

A technician receives a tablet that looks like it has a bulge inside. The bulge is pushing the screen away from the backplate. The tablet still turns on when it is plugged in, but the screen looks damaged and turns off when unplugged. Which of the following is the most likely cause of this issue?

- A. Malfunctioning power supply
- B. Damaged charge port
- C. Swollen battery
- D. Broken screen

**Answer:** C

**Explanation:**

The most likely cause is a swollen battery, which occurs when the battery's internal components break down, causing a buildup of gas. This results in:

Physical Symptoms: The battery bulges, pushing the screen away.

Operational Symptoms: The device may still power on when connected to a charger but fails to hold a charge due to battery degradation.

Option A (Malfunctioning power supply): Incorrect. Power supply issues affect charging but do not cause physical bulging.

Option B (Damaged charge port): Incorrect. A damaged port can prevent charging but does not explain the bulge.

Option D (Broken screen): Incorrect. A damaged screen does not cause the device to bulge; it is likely a secondary effect of the swollen battery.

Safety Note: A swollen battery poses a risk of fire or explosion and should be replaced immediately following proper disposal procedures.

References:

CompTIA A+ Core 1 Objectives: 5.5 (Troubleshooting common issues with mobile devices)

**NEW QUESTION 9**

- (Topic 1)

Which of the following utilizes specialized ports on a laptop to expand the local connection options?

- A. NFC adapter
- B. Docking station
- C. Port replicator
- D. USB dongle

**Answer:** B

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

A docking station connects to a laptop's proprietary port or USB-C/Thunderbolt, providing access to multiple additional ports (USB, Ethernet, video, audio, etc.). It allows users to transform a laptop into a full desktop workstation.

? Option A (NFC adapter): Used for short-range communication, not port expansion.

? Option C (Port replicator): Similar to a dock but usually less powerful and often lacks charging or video output.

? Option D (USB dongle): Adds a single function (like Wi-Fi or storage), not full port expansion.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 1.4: Given a scenario, configure settings and use cases for laptops and mobile devices.

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**NEW QUESTION 10**

- (Topic 1)

Which of the following should a technician use to terminate a Cat 6 cable to a patch panel?

- A. Punchdown tool
- B. Crimper
- C. Toner probe
- D. Network tap

**Answer:** A

**Explanation:**

Comprehensive and Detailed Explanation From Exact Extract:

A punchdown tool is specifically used to insert wires into a punchdown block in patch panels, which is typical for Cat 6 and similar cabling. It ensures a secure and correct connection by pushing the wire into a metal groove that slices the insulation.

Reference: "CompTIA A+ Certification All-in-One Exam Guide" by Mike Meyers – Chapter 18, page 758.

**NEW QUESTION 10**

- (Topic 1)

The output from a dot matrix printer has become lighter over time. Which of the following should a technician do to fix the issue?

- A. Clean the printhead.
- B. Replace the ribbon.
- C. Install a maintenance kit.
- D. Calibrate the alignment.

**Answer:** B

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

Dot matrix printers use an inked ribbon that physically contacts the paper through tiny pins. Over time, the ribbon wears out or dries up, resulting in faded or light print output. Replacing the ribbon restores print quality.

? Option A: Cleaning helps with image clarity, not ink density.

? Option C: Maintenance kits apply to laser printers, not dot matrix.

? Option D: Calibration affects print position, not darkness. CompTIA A+ Core 1 Exam Objective Reference:

? Objective 3.7: Given a scenario, troubleshoot common printer problems.

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**NEW QUESTION 14**

- (Topic 1)

A technician needs to troubleshoot a user's smartphone that will not connect to its wireless provider's service. Which of the following should the technician check first?

- A. SIM card
- B. Network settings
- C. Subscription plan
- D. Bluetooth connection

**Answer:** C

#### NEW QUESTION 19

- (Topic 1)

A company uses vital legacy software that does not run in the current OS version Which of the following will best support the software while keeping the OS current?

- A. Shared resources
- B. System sandbox
- C. Test development
- D. Application visualization

**Answer:** D

#### Explanation:

Application virtualization allows legacy software to run in a virtualized environment while the operating system remains current. It isolates the application from the OS, ensuring compatibility without downgrading the OS.

Why Not A (Shared resources): This relates to resource sharing, not application compatibility.

Why Not B (System sandbox): Sandboxes isolate applications for security testing, not compatibility.

Why Not C (Test development): Test environments are used for development, not running legacy applications.

CompTIA A+ Exam Reference: Core 1 (220-1201), Section 4.2, virtualization concepts.

#### NEW QUESTION 21

- (Topic 1)

When turning on a workstation, a technician observes the following message: "Bootable device not found."

The technician verifies the correct boot order in the BIOS. Which of the following steps should the technician take next?

- A. Reformat the HDD.
- B. Run HDD diagnostics.
- C. Reseat the RAM.
- D. Replace the HDD.

**Answer:** B

#### Explanation:

Comprehensive and Detailed In-Depth Explanation:

If the system reports "Bootable device not found", and the BIOS is configured correctly, the next step is to run diagnostics on the hard drive to check for physical or logical failure. It could be a sign of a failing drive or corrupt boot sector.

? Option A: Reformatting the drive would erase data — not a diagnostic step.

? Option C: RAM does not affect whether a drive is bootable.

? Option D: Replacing the drive should only be done after diagnostics confirm failure. CompTIA A+ Core 1 Exam Objective Reference:

? Objective 3.5: Given a scenario, troubleshoot problems related to storage devices.

#### NEW QUESTION 25

- (Topic 1)

A technician wants to monitor network statistics for devices communicating with one another on the local subnet Which of the following devices should the technician install.

- A. Managed switch
- B. Router
- C. Access point
- D. Firewall

**Answer:** A

#### Explanation:

A managed switch provides advanced features such as traffic monitoring and VLAN configuration, allowing a technician to view network statistics for devices on the local subnet.

Why Not B (Router): A router connects different networks and directs traffic between them but does not provide detailed subnet-level statistics.

Why Not C (Access point): Access points provide wireless connectivity but lack traffic monitoring features.

Why Not D (Firewall): A firewall filters traffic but is not used for monitoring detailed statistics on a local subnet.

CompTIA A+ Exam Reference: Core 1 (220-1201), Section 2.6, network monitoring tools.

#### NEW QUESTION 26

- (Topic 1)

Which of the following tools would a technician use to connect wires to an RJ45 connector?

- A. Crimper
- B. Cable stripper
- C. Punchdown
- D. Loopback plug

**Answer:** A



**Explanation:**

Comprehensive and Detailed Explanation From Exact Extract:

A crimper is specifically used to attach RJ45 connectors to the ends of network cables. It presses the connector pins into the cable's wires, establishing a secure electrical connection. A punchdown tool is used for wiring patch panels or keystone jacks, not for attaching connectors.

Reference: "CompTIA A+ Complete Study Guide" by Quentin Docter – Chapter 3, "Cables and Connectors", page 162. Also outlined in the 220-1201 objectives under 3.1.

**NEW QUESTION 31**

- (Topic 1)

A technician is troubleshooting a computer that has random BSOD alerts and intermittently freezes during normal use. Performance degrades as the day goes on. No new software or hardware changes have been implemented. Freezing occurs under performance-intensive operations. Which of the following hardware components is most likely at fault?

- A. Video card
- B. HDD
- C. RAM module
- D. TPM

**Answer: C**

**Explanation:**

Comprehensive and Detailed Step-by-Step Explanation:

Random BSODs (Blue Screen of Death), intermittent freezing, and degraded performance under load are common symptoms of failing or faulty RAM (Random Access Memory). Here's the reasoning:

RAM Module (Correct Answer):

Faulty or failing RAM can cause random BSODs due to memory errors when the system attempts to read or write to corrupted memory locations.

Intermittent freezing, especially under performance-intensive operations, can occur because the CPU relies heavily on RAM for active processing tasks.

Over time, heat generated during usage can exacerbate RAM instability, leading to progressively worse performance throughout the day.

Solution: The technician should run a memory diagnostic tool, such as Windows Memory

Diagnostic or MemTest86, to confirm if the RAM is at fault. Incorrect Options:

\* A. Video Card: A faulty video card can cause graphical glitches, screen artifacts, or crashes, but it is unlikely to cause system-wide performance degradation and random freezing under normal operations unless the issue is specific to GPU-intensive tasks (e.g., gaming or video rendering).

\* B. HDD: A failing hard drive can cause system slowdowns and freezing, but it typically produces other symptoms such as read/write errors, boot failures, or clicking sounds. HDD issues do not usually cause BSODs unless critical system files are corrupted.

\* D. TPM (Trusted Platform Module): A TPM is a hardware-based security module used for encryption and secure authentication. It does not affect performance or cause BSODs or freezing under normal operation.

Key Takeaway:

The symptoms described (random BSODs, intermittent freezing, and degraded performance under load) are most likely caused by faulty or failing RAM. Memory diagnostic tools should be used to confirm the issue.

Reference: CompTIA A+ Core 1 Exam Objectives (220-1201), Domain 5.2 – Troubleshooting problems related to motherboards, RAM, CPUs, and power.

**NEW QUESTION 36**

- (Topic 1)

The display in a conference room has a ghost image that does not match the presentation. Which of the following would test resolve the issue?

- A. Adjust the color settings.
- B. Correct the keystone.
- C. Increase the brightness levels
- D. Replace the monitor.

**Answer: B**

**Explanation:**

\* B. Correct the keystone:

A keystone correction adjusts the image shape when a projector is angled either up or

down. When a projector is not positioned directly perpendicular to the screen, the image becomes distorted or offset. Correcting the keystone will resolve alignment issues, ensuring that the presentation matches the display.

Incorrect Options:

\* A. Adjust the color settings: This is used for improving color balance and has no impact on ghosting or mismatched images.

\* C. Increase the brightness levels: Brightness changes the visibility of the image but does not address ghosting or alignment.

\* D. Replace the monitor: Replacing the monitor is unnecessary unless there is hardware failure, which is not indicated here.

Key Takeaway: Keystone correction is essential to resolve alignment and distortion issues in projected images.

Reference: CompTIA A+ Core 1 Exam Objectives (220-1201), Domain 3.4 – Display troubleshooting.

**NEW QUESTION 41**

- (Topic 1)

Which of the following services is used to allocate IP addresses in an enterprise-wide environment?

- A. DNS
- B. Syslog
- C. Telnet
- D. DHCP

**Answer: D**

**Explanation:**

Dynamic Host Configuration Protocol (DHCP) is a network service used to automatically assign IP addresses and other network configuration details (such as subnet masks and default gateways) to devices on an enterprise-wide network.

Why Not A (DNS): DNS resolves domain names to IP addresses but does not allocate IP addresses.

Why Not B (Syslog): Syslog is used for logging system events, not IP address management.

Why Not C (Telnet): Telnet is a protocol for remote access, not for IP allocation. CompTIA A+ Exam Reference: Core 1 (220-1201), Section 2.6, DHCP concepts.

#### NEW QUESTION 44

- (Topic 1)

A technician needs to move a workstation to a different logical network segment. Which of the following technologies should the technician use?

- A. DHCP
- B. VLAN
- C. DNS
- D. VPN

**Answer: B**

#### Explanation:

Comprehensive and Detailed In-Depth Explanation:

AVLAN (Virtual LAN) is used to logically segment a network without requiring physical separation. It enables grouping devices based on function or department regardless of their physical location.

? Option A (DHCP): Assigns IP addresses dynamically but doesn't create network segments.

? Option C (DNS): Resolves domain names to IP addresses, not used for network segmentation.

? Option D (VPN): Provides secure remote access but does not relate to logical segmentation within a local network.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 2.3: Explain common logical networking concepts.

#### NEW QUESTION 45

- (Topic 1)

Which of the following types of connectors does an IDE hard drive use for power?

- A. F type
- B. SC
- C. Molex
- D. Lightning

**Answer: C**

#### Explanation:

An IDE hard drive uses a Molex connector for power. This 4-pin connector is a standard for older drives.

Why Not A (F type): F type connectors are used for coaxial cables in video and internet applications.

Why Not B (SC): SC connectors are for fiber optic cables.

Why Not D (Lightning): Lightning connectors are for Apple devices.

CompTIA A+ Exam Reference: Core 1 (220-1201), Section 3.1, cable types and connectors.

#### NEW QUESTION 50

- (Topic 1)

Which of the following DNS records would an administrator change to redirect email flow?

- A. MX
- B. TXT
- C. SPF
- D. CNAME

**Answer: A**

#### Explanation:

Comprehensive and Detailed In-Depth Explanation:

An MX (Mail Exchange) record defines which mail servers are responsible for receiving email for a domain. If you want to change or redirect email traffic, the MX record must be updated with the correct server information.

? Option B (TXT): Stores text-based info — used for SPF, DKIM, etc.

? Option C (SPF): Part of email authentication stored in a TXT record; doesn't redirect traffic.

? Option D (CNAME): Alias for another domain name — not used for email routing. CompTIA A+ Core 1 Exam Objective Reference:

? Objective 2.4: Compare and contrast common networking hardware.

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#### NEW QUESTION 51

- (Topic 1)

A customer needs to install a new printer in their network. The customer reports that users had intermittent connectivity issues with previous printers. Which of the following should the technician configure on the new printer to prevent this issue?

- A. Gateway IP address
- B. DHCP IP address
- C. Static IP address
- D. Public IP address

**Answer: C**

#### Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

Intermittent connectivity issues with network printers are commonly caused by changing IP addresses when using DHCP. Assigning a static IP address ensures

that the printer is always reachable at the same IP address by client machines.

Reference: "CompTIA A+ Complete Study Guide" by Quentin Docter – Chapter 4, "Printers and Multifunction Devices", page 241.

**NEW QUESTION 54**

- (Topic 1)

A user is experiencing multiple issues with an in-place upgrade of a laptop's operating system. The built-in camera is unresponsive, and the user is unable to pair the device with any Bluetooth accessories. Which of the following ate most likely causing three issues? (Select two).

- A. Incorrect configuration of the settings
- B. OS and device version incompatibility
- C. Disabled settings following the upgrade
- D. Full storage
- E. Outdated drivers
- F. Corrupted registry entries

**Answer:** CE

**Explanation:**

Outdated drivers: Device functionality issues after an OS upgrade are often caused by incompatible or outdated drivers.

Disabled settings: Some features may be disabled during the upgrade process, requiring re-enablement.

Why Not A (Incorrect configuration): This is unlikely given the issues arose only after the upgrade.

Why Not B (OS and device incompatibility): Upgrades check for compatibility before installation.

Why Not D (Full storage): Storage issues typically prevent installation, not device functionality.

Why Not F (Corrupted registry entries): While possible, this is less common than the selected answers.

CompTIA A+ Exam Reference: Core 1 (220-1201), Section 3.5, troubleshooting OS upgrades.

**NEW QUESTION 55**

- (Topic 1)

Which of the following types of RAM is typically used in servers?

- A. SODIMM
- B. Rambus
- C. DDR3
- D. ECC

**Answer:** D

**Explanation:**

ECC (Error-Correcting Code) RAM is commonly used in servers to provide error detection and correction, improving reliability in critical systems. It is designed to detect and correct single-bit errors, ensuring data integrity in environments where stability is paramount. Option A (SODIMM): Incorrect. SODIMM is typically used in laptops, not servers.

Option B (Rambus): Incorrect. Rambus is an outdated RAM type and not commonly used today.

Option C (DDR3): Incorrect. While DDR3 is a type of RAM, it is not specific to servers and does not provide error correction.

References:

CompTIA A+ Core 1 Objectives: 3.2 (RAM types and their uses)

**NEW QUESTION 58**

- (Topic 1)

After a technician installs a new motherboard, the computer will not start and fails POST. The technician verifies the power supply is functioning as expected, and the CPU is installed correctly. Which of the following steps should the technician complete next?

- A. Flash the BIOS.
- B. Check the CMOS battery.
- C. Reseat the RAM.
- D. Reinstall the old motherboard.

**Answer:** C

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

A common reason for a POST failure after a motherboard installation is improperly seated RAM. The system requires working memory to successfully complete POST. Reseating (removing and reinserting) the RAM ensures it's making proper contact with the motherboard.

? Option A: Flashing the BIOS is not possible if the system won't POST.

? Option B: A dead CMOS battery can cause BIOS settings to reset, but it usually won't prevent POST entirely.

? Option D: Reinstalling the old motherboard is premature — basic troubleshooting steps should be completed first.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 3.5: Given a scenario, troubleshoot problems related to motherboards, RAM, CPU, and power.

**NEW QUESTION 59**

- (Topic 1)

Which of the following port numbers are associated with email traffic? (Select two).

- A. 23
- B. 25
- C. 67
- D. 110
- E. 137
- F. 443



**Answer:** BD

**Explanation:**

Comprehensive and Detailed Step-by-Step Explanation:

To answer this question, we need to identify the port numbers associated with email protocols used in client-server communication.

Port 25 (SMTP - Simple Mail Transfer Protocol):

This port is primarily used for sending emails between mail servers and from mail clients to mail servers (sending outbound mail).

SMTP is an essential protocol for email traffic.

Reference: CompTIA A+ Core 1 Exam Objectives (220-1201), Domain 2.5 – Explain basic wired and wireless networking concepts, including ports and protocols.

Port 110 (POP3 - Post Office Protocol v3):

POP3 is used for retrieving emails from a mail server. It is commonly used for downloading email messages to a local client, after which the messages are deleted from the server.

While not as commonly used today (due to IMAP being preferred), POP3 is still a recognized email protocol, and its association with port 110 makes it a valid answer.

Reference: CompTIA A+ Core 1 Exam Objectives (220-1201), Domain 2.5 – Explain basic wired and wireless networking concepts, including ports and protocols.

Incorrect Options:

\* A. Port 23: This is the Telnet protocol used for remote terminal access. It is not related to email traffic.

\* C. Port 67: This port is associated with the DHCP (Dynamic Host Configuration Protocol) server-to-client communications. It is unrelated to email.

\* E. Port 137: This port is part of NetBIOS, used for name resolution in legacy Windows environments. It is not relevant to email traffic.

\* F. Port 443: This port is used for HTTPS (secure web traffic) and is unrelated to email protocols.

Key Takeaway: The two correct port numbers associated with email traffic are B. 25 (SMTP) for sending emails and D. 110 (POP3) for retrieving emails.

**NEW QUESTION 64**

- (Topic 1)

A technician recently updated the firmware on a dual-BIOS motherboard. Following the update, the system has been stuck in a boot loop and cannot start an OS from any internal or external device. The technician cannot access the UEFI menu either. Which of the following should the technician do next?

A. Enable the secondary configuration.

B. Downgrade the firmware via USB.

C. Start a warranty repair of the motherboard.

D. Reapply thermal paste to the CPU.

**Answer:** A

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

Dual-BIOS motherboards contain two firmware chips. If the primary BIOS becomes corrupted, the system can failover to the secondary BIOS. Most boards allow manual enabling of the secondary BIOS via a physical switch or jumper.

? Option B: Downgrading firmware may not be possible if the system won't POST or access UEFI.

? Option C: Not necessary until both BIOS chips are non-functional.

? Option D: Thermal paste affects heat dissipation, not BIOS/boot behavior. CompTIA A+ Core 1 Exam Objective Reference:

? Objective 3.5: Given a scenario, troubleshoot problems related to motherboards, RAM, CPU, and power.

**NEW QUESTION 67**

- (Topic 1)

Each floor at a new corporate facility will have four printers available for all users to print from. All of the printers will be connected with RJ45 and not joined to a domain. Which of the following needs to be set up to accomplish this task? (Select two).

A. Printer shares

B. DHCP server

C. Print server

D. Printer subnet

E. SMB configuration

F. Printer Wi-Fi settings

**Answer:** AC

**Explanation:**

To allow multiple users to print to networked printers:

Printer shares enable users to access printers shared on the network. Print servers manage print jobs and provide centralized control of printing. Why Not B (DHCP server): DHCP is unrelated to print management.

Why Not D (Printer subnet): Subnets group devices but don't manage printing.

Why Not E (SMB configuration): SMB is for file sharing, not specifically print management. Why Not F (Printer Wi-Fi settings): These settings are irrelevant since the printers use

Ethernet.

CompTIA A+ Exam Reference: Core 2 (220-1102), Section 4.6, printer configuration.

**NEW QUESTION 69**

- (Topic 1)

An SAS RAID array has severely degraded and gone offline. A systems administrator examines the syslog, and the point of failure is not obvious. Which of the following techniques should the administrator use to identify the issue? (Select two).

A. Run a magnet over each drive.

B. Check if one of the drives is not level

C. Listen for clicking and grinding noises

D. Check the OS logs

E. Update the RAID controller firmware.

F. Check the historical SMART data

**Answer:** CF

**Explanation:**

Clicking and grinding noises indicate mechanical drive failure.

SMART data provides insights into the health and status of drives, helping identify failing components in the RAID array.

Why Not A (Run a magnet): This would damage drives.

Why Not B (Check if one drive is not level): Physical leveling is irrelevant.

Why Not D (Check OS logs): OS logs may provide limited information for RAID arrays. Why Not E (Update RAID controller firmware): While important, it does not diagnose drive failure.

CompTIA A+ Exam Reference: Core 1 (220-1201), Section 3.3, storage troubleshooting.

**NEW QUESTION 74**

- (Topic 1)

A technician needs to ensure all data communications on all network devices are encrypted when logging in to the console. Which of the following protocols should the technician enable?

- A. SSH
- B. LDAP
- C. FTPS
- D. SMTP

**Answer:** A

**Explanation:**

SSH (Secure Shell) encrypts data communications for secure remote login and management of network devices, ensuring all console connections are encrypted.

Why Not B (LDAP): LDAP is used for directory services and does not encrypt by default. Why Not C (FTPS): FTPS encrypts file transfers, not console communications.

Why Not D (SMTP): SMTP is used for email transmission, not for securing login sessions. CompTIA A+ Exam Reference: Core 1 (220-1201), Section 2.7, network security protocols.

**NEW QUESTION 79**

- (Topic 1)

Which of the following technologies best allows a phone to connect to a point-of-sale terminal for wireless payments?

- A. Bluetooth
- B. NFC
- C. Wi-Fi
- D. Cellular

**Answer:** B

**Explanation:**

Comprehensive and Detailed Explanation From Exact Extract:

Near-field communication (NFC) is a short-distance wireless communication method widely used in mobile payment systems like Apple Pay and Google Pay.

Simply placing the device near a compatible terminal initiates the payment process.

Reference: "Mike Meyers' CompTIA A+ Certification All-in-One Exam Guide" – Chapter 24, page 1022.

**NEW QUESTION 80**

- (Topic 1)

Which of the following storage options would a technician most likely recommend to have large amounts of affordable capacity without concern for read times on a desktop computer?

- A. 750GB NVMe M.2 SSD
- B. 2x 1TB PCIe SSD in RAID 1
- C. 2TB SATA 3.5" 5,400rpm HDD
- D. 4TB SAS 2.5" 15,000rpm HDD

**Answer:** C

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

If performance is not a primary concern and the user requires large, cost-effective storage, a 2TB 5400rpm SATA HDD is ideal. It offers high capacity at a lower price point than SSDs and faster HDDs.

? Option A: NVMe drives offer exceptional speed but are significantly more expensive per GB and not necessary when read/write speed is not a concern.

? Option B: RAID 1 improves redundancy but cuts usable capacity in half and uses expensive SSDs.

? Option D: SAS drives are fast and reliable but are enterprise-grade and expensive — overkill for desktop use.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 1.3: Given a scenario, install and configure storage devices.

**NEW QUESTION 84**

- (Topic 1)

Which of the following display characteristics would be most important to ensure screen images appear the same as printed output?

- A. Color gamut
- B. Pixel density
- C. Refresh rate
- D. Resolution

**Answer:** A

**Explanation:**

Color gamut refers to the range of colors a display can accurately reproduce. For tasks like graphic design or photo editing, ensuring the screen's colors match the printed output is critical. Monitors with wide and accurate color gamuts (e.g., Adobe RGB) are preferred for these applications.

Option B (Pixel density): Incorrect. Pixel density affects image sharpness, not color accuracy.

Option C (Refresh rate): Incorrect. Refresh rate impacts motion smoothness but is unrelated to color matching.

Option D (Resolution): Incorrect. Resolution determines clarity and detail but does not influence color accuracy.

References:

CompTIA A+ Core 1 Objectives: 1.2 (Display types and characteristics)

**NEW QUESTION 89**

- (Topic 1)

Which of the following is a Bluetooth network an example of?

- A. PAN
- B. LAN
- C. WAN
- D. SAN

**Answer:** A

**Explanation:**

Comprehensive and Detailed Explanation From Exact Extract:

Bluetooth is a wireless technology designed for short-range communication between devices. It is a classic example of a Personal Area Network (PAN), which supports communication between devices like smartphones, headsets, keyboards, and mice within a few meters. PANs are smaller in scope compared to LANs or WANs.

Reference: "CompTIA A+ Complete Study Guide" by Quentin Docter – Chapter 5, "Networking Fundamentals", page 275.

**NEW QUESTION 92**

- (Topic 1)

Which of the following drive interfaces is typically used in server systems but not in home computers?

- A. NVMe
- B. SAS
- C. SATA
- D. PCIe

**Answer:** B

**Explanation:**

Comprehensive and Detailed Explanation From Exact Extract:

SAS (Serial Attached SCSI) is a high-performance drive interface commonly found in enterprise environments and servers due to its reliability and speed. While SATA is more common in consumer systems, SAS is specifically designed for mission-critical applications, offering features like full-duplex operation and compatibility with SATA drives. Reference: "CompTIA A+ Certification All-in-One Exam Guide" by Mike Meyers – Chapter 8, "Mass Storage Technologies", page 288.

**NEW QUESTION 96**

- (Topic 1)

Which of the following could a user employ to maximize module bandwidth when selecting memory for a high-end gaming computer?

- A. Error correction
- B. RAM voltage
- C. Channel configuration
- D. Physical module size

**Answer:** C

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

Channel configuration(e.g.,dual-channel,quad-channel) determines how memory modules communicate with the memory controller. Usingmatched pairs in dual- or quad-channel setups can significantlyincrease memory bandwidth, improving performance — especially for gaming and video-intensive tasks.

? Option A (Error correction):ECC RAM is used in servers for reliability, not performance or gaming.

? Option B (RAM voltage):Affects compatibility and overclocking but not bandwidth.

? Option D (Physical size):Refers to module form factor (e.g., DIMM, SO-DIMM) and does not impact bandwidth.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 3.2: Given a scenario, install RAM types.

**NEW QUESTION 101**

- (Topic 1)

A user reports that a software application functioned as expected the previous day, but this morning, the user is unable to launch the application. Which of the following describe what the technician should do next?

- A. Research the symptoms
- B. Identify any changes the user has made
- C. Determine which steps need to be performed.
- D. Check the vendor's website for guidance.

**Answer:** B

**Explanation:**

Identifying changes made to the system is the next step to troubleshoot why an application no longer launches, as recent changes often cause such issues.

Why Not A (Research the symptoms): Research is broader and should come after identifying changes.

Why Not C (Determine which steps need to be performed): This comes after identifying the issue.

Why Not D (Check the vendor's website): This is a later step if further guidance is needed. CompTIA A+ Exam Reference: Core 2 (220-1102), Section 3.1, troubleshooting methodology.

**NEW QUESTION 104**

- (Topic 1)

Which of the forming connector types would best suit a company that experiences a large volume of internet traffic?

- A. USB 3.1
- B. Quad-shielded RG11 coax
- C. SATA3.0
- D. Unshielded plenum RJ45

**Answer:** B

**Explanation:**

RG11 coaxial cable with quad shielding is designed to handle large volumes of internet traffic, providing excellent resistance to interference and high bandwidth capacity.

Why Not A (USB 3.1): USB 3.1 is used for connecting peripherals, not for high-volume internet traffic.

Why Not C (SATA3.0): SATA is used for internal data storage connections, not for network traffic.

Why Not D (Unshielded plenum RJ45): While RJ45 cables are commonly used, unshielded cables are prone to interference and are not ideal for high-volume traffic.

CompTIA A+ Exam Reference: Core 1 (220-1201), Section 3.1, cable types and their characteristics.

**NEW QUESTION 105**

- (Topic 1)

A projector has been shutting down after 30 minutes of use, and it has a strange smell The technician confirms the power source is not the cause of the issue

Which of the following steps should the technician take next to resolve this issue?

- A. Replace the bulb
- B. Check the projector configuration.
- C. Clean the filter
- D. Adjust the gamma settings.

**Answer:** C

**Explanation:**

Reasoning: Projectors have air filters that prevent dust from entering the internal components. A clogged filter can cause the projector to overheat, resulting in shutdowns and even strange smells due to overheating components. Cleaning the filter is a standard troubleshooting step when projectors exhibit overheating symptoms.

Why the Other Options Are Incorrect:

\* A. Replace the bulb:

While a failing bulb may eventually cause issues, it would not typically result in a strange smell or repeated shutdowns after a fixed period. Bulb issues usually manifest as dim or flickering images.

\* B. Check the projector configuration:

Configuration settings, such as resolution or input options, would not cause overheating or shutdowns. This option does not address the described symptoms.

\* D. Adjust the gamma settings:

Gamma settings affect display brightness and contrast but have no impact on overheating or strange smells.

Practical Example:

Dust accumulation in projectors is a common issue, especially in environments with poor air circulation. A clogged filter causes restricted airflow, leading to overheating and automatic shutdowns to protect internal components. Cleaning the filter typically resolves this issue.

CompTIA A+ Exam Objective Alignment:

Objective 5.5: Troubleshoot common video, projector, and display issues.

**NEW QUESTION 110**

- (Topic 1)

A user routinely connects and disconnects multiple devices from a laptop. Which of the following options should a technician recommend to facilitate ease of user mobility?

- A. Serial interfaces
- B. Docking station
- C. Network switch
- D. USB hub

**Answer:** B

**Explanation:**

Reasoning: A docking station is designed to provide a central connection point for multiple peripherals, such as monitors, keyboards, mice, and network cables. It allows users to quickly connect or disconnect all devices by simply docking or undocking their laptop, improving mobility and reducing wear and tear on individual ports.

Why the Other Options Are Incorrect:

\* A. Serial interfaces:

Serial interfaces are outdated and rarely used in modern laptops or peripherals. They are not practical for facilitating the connection of multiple devices.

\* C. Network switch:

A network switch is used to connect multiple devices to a network, but it does not simplify the connection of peripherals to a laptop.

\* D. USB hub:

A USB hub can extend the number of available USB ports but lacks the full functionality of a docking station, such as video output or Ethernet connectivity.



Practical Example:

A user with a laptop, external monitors, keyboard, and mouse can use a docking station to connect all devices with a single action, instead of plugging in each device manually.

CompTIA A+ Exam Objective Alignment:

Objective 5.2: Explain device interfaces, connection types, and usage of docking stations.

#### NEW QUESTION 112

- (Topic 1)

While reviewing options in the BIOS/UEFI settings page to fix a laptop issue, a support technician notices an option to clear existing TPM keys. Which of the following would most likely happen if the TPM is cleared?

- A. Encrypted hard drives would probably not be accessible.
- B. All security certificates would need to be reinstalled from trusted roots.
- C. The device would need to be reenrolled in the MDM platform
- D. The laptop would need to be registered to the domain as a new client.

**Answer:** A

#### Explanation:

The Trusted Platform Module (TPM) is a hardware-based security feature used to store cryptographic keys, such as those used for encryption, authentication, or device identification. It plays a critical role in ensuring secure operations for encrypted drives, BitLocker, and secure boot processes. Clearing TPM keys involves wiping all stored cryptographic data, which can lead to several consequences depending on what the TPM was being used for. Let's break it down:

Correct Answer A. Encrypted hard drives would probably not be accessible. Encrypted hard drives, such as those secured with BitLocker encryption, rely on the cryptographic keys stored in the TPM to unlock data.

Clearing the TPM will erase these keys, making it impossible for the encrypted drive to decrypt its contents unless a recovery key (separate from the TPM) is available. Without this recovery key, the data will likely become inaccessible.

CompTIA A+ Core 1 Exam Objective Reference: This falls under Objective 3.5, which covers understanding BIOS/UEFI configurations, TPM functions, and securing devices.

Why the Other Options Are Incorrect:

\* B. All security certificates would need to be reinstalled from trusted roots.

Clearing the TPM does not erase security certificates stored in the operating system or other areas. Certificates are generally managed by the OS or specific applications, not the TPM. Clearing the TPM only affects cryptographic keys and data stored in the TPM chip, so this is incorrect.

\* C. The device would need to be reenrolled in the MDM platform.

Mobile Device Management (MDM) enrollment typically does not rely on the TPM. While certain enterprise security configurations may involve the TPM, clearing it does not inherently trigger MDM reenrollment unless specifically tied to the MDM configuration.

\* D. The laptop would need to be registered to the domain as a new client.

While domain registrations may sometimes use TPM for authentication or secure operations, clearing the TPM alone does not require re-registering the device to the domain. The domain registration and authentication process rely more on system-level credentials than the TPM itself.

Practical Example:

A user enables BitLocker on their laptop, which relies on the TPM to store the encryption key. Later, if they clear the TPM via BIOS/UEFI without saving the BitLocker recovery key separately, they will not be able to unlock the hard drive, leading to data loss unless the recovery key is available. This is a common issue when technicians or users inadvertently clear the TPM without understanding its role in encryption.

CompTIA A+ Exam Objective Alignment:

Objective 3.5: Given a scenario, install and configure laptop hardware and components, including UEFI/BIOS security settings (TPM, secure boot, etc.).

This question tests understanding of TPM functionality, encryption technologies, and secure device configurations.

#### NEW QUESTION 113

- (Topic 1)

An end user's domain password expires while they are working from home. The end user tries to reset the password using Ctrl+Alt+Delete and then receives the following message:

Configuration information could not be read from the domain controller, either because the machine is unavailable or because access is denied.

Which of the following will resolve this issue?

- A. Restart the computer.
- B. Connect to the VPN.
- C. Reset the account in Active Directory.
- D. Join the Wi-Fi network.

**Answer:** B

#### Explanation:

Comprehensive and Detailed In-Depth Explanation:

To change a domain password from a remote location, the system must communicate with the domain controller. Since the user is working from home, they need to connect to the corporate VPN to establish that secure connection. Without it, the password change cannot be authenticated.

? Option A: Restarting will not resolve the lack of connection to the domain controller.

? Option C: Resetting the password in AD could help, but doesn't let the user reset it themselves.

? Option D: The user may already be on Wi-Fi; the issue is with connecting to the corporate network, not local.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 1.6: Given a scenario, configure basic mobile device network connectivity and application support.

=====

#### NEW QUESTION 114

- (Topic 1)

Which of the following resolutions is commonly known as Ultra HD?

- A. 1920x1080
- B. 2048x1080
- C. 3840x2160
- D. 7680x4320



**Answer:** C

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

Ultra HD (UHD), also referred to as 4K UHD, has a resolution of 3840x2160. It's four times the resolution of standard 1080p (Full HD), offering more screen real estate and sharper images.

? Option A (1920x1080): Full HD (FHD), not UHD.

? Option B (2048x1080): DCI 2K — used in cinema, not common for Ultra HD.

? Option D (7680x4320): Known as 8K UHD, not standard Ultra HD. CompTIA A+ Core 1 Exam Objective Reference:

? Objective 1.7: Compare and contrast display technologies and their features.

=====

**NEW QUESTION 118**

- (Topic 1)

Which of the following connectors is found on an optical networking cable?

- A. RJ45
- B. LC
- C. USB-C
- D. Lightning

**Answer:** B

**Explanation:**

Comprehensive and Detailed Step-by-Step Explanation: LC Connector (Lucent Connector):

LC is a type of fiber optic connector commonly used in optical networking cables. It is small, compact, and widely used for high-speed data transfer over fiber optic networks.

LC connectors are specifically designed for fiber optic cables, making them the correct answer.

Incorrect Options:

\* A. RJ45: RJ45 connectors are used for Ethernet cables (twisted-pair copper cabling) and are not compatible with optical networking cables.

\* C. USB-C: USB-C is a connector type used for general-purpose data transfer, charging, and video output, not for optical networking.

\* D. Lightning: Lightning connectors are proprietary to Apple devices and are not used in optical networking.

Key Takeaway:

The LC connector is specifically designed for fiber optic cables, making it the correct answer for optical networking.

Reference: CompTIA A+ Core 1 Exam Objectives (220-1201), Domain 3.1 – Cable and

connector types, including fiber optic cables.

**NEW QUESTION 122**

- (Topic 1)

A company needs to develop a disaster recovery solution based on virtual machines. Which of the following service models is the most suitable?

- A. Infrastructure as a Service
- B. Security as a Service
- C. Platform as a Service
- D. Software as a Service

**Answer:** A

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

Infrastructure as a Service (IaaS) provides virtualized computing resources over the internet such as servers, storage, and networking. It allows a business to quickly spin up virtual machines and is ideal for disaster recovery and scalable IT infrastructure needs.

? Option B: SecaaS focuses on cloud-delivered security, not infrastructure.

? Option C: PaaS offers development environments, not full virtual infrastructure.

? Option D: SaaS delivers applications over the internet (e.g., email, CRM) — not for disaster recovery.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 4.1: Compare and contrast cloud computing concepts.

=====

**NEW QUESTION 123**

- (Topic 1)

Which of the following would prevent a virtual machine from communicating with any endpoints on a network or the internet?

- A. VDI
- B. Private cloud
- C. Sandbox
- D. Type 1 hypervisor

**Answer:** C

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

A sandbox is an isolated virtual environment used to test or run applications securely without risk to the host or network. It prevents the VM from communicating with external systems, making it ideal for testing malware or suspicious software.

? Option A (VDI): Virtual Desktop Infrastructure allows network communication; it does not restrict it.

? Option B (Private cloud): Refers to a cloud deployment model, not a communication barrier.

? Option D (Type 1 hypervisor): Runs VMs directly on hardware and does not inherently block communication.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 4.1: Compare and contrast cloud computing concepts.

=====

**NEW QUESTION 128**

- (Topic 1)

Each time a user tries to print, the paper becomes stuck at the last stage of the print job and the user has to pull the paper out of the printer. Which of the following is the most likely cause?

- A. Rollers
- B. Tray assembly
- C. Toner
- D. Printhead

**Answer:** A

**Explanation:**

If paper gets stuck at the last stage of printing, the rollers responsible for moving the paper through the printer are likely worn out or dirty.

Why Not B (Tray assembly): The tray assembly manages paper loading, not feeding during the print process.

Why Not C (Toner): Toner is unrelated to paper jams.

Why Not D (Printhead): Printheads manage ink/toner distribution, not paper movement. CompTIA A+ Exam Reference: Core 2 (220-1102), Section 4.6, printer troubleshooting.

**NEW QUESTION 133**

- (Topic 1)

A user's wireless headset shows a "connected" status when turned on, but the Bluetooth list on the user's phone shows that the headset is "not connected." Which of the following should the technician do?

- A. Enter the PIN.
- B. Turn off Wi-Fi.
- C. Re-pair the devices.
- D. Enable Bluetooth.

**Answer:** C

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

When a device shows as not connected even though it previously paired, the most effective action is to re-pair the devices. This resets the Bluetooth connection, clears any corruption in pairing profiles, and re-establishes communication.

? Option A: Entering a PIN is only relevant during initial pairing and may not be prompted again.

? Option B: Turning off Wi-Fi doesn't typically affect Bluetooth; they operate on similar frequencies but don't conflict this way in normal use.

? Option D: If Bluetooth were disabled, the device wouldn't appear at all, not just show as "not connected."

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 1.5: Given a scenario, connect and configure accessories and ports of mobile devices.

**NEW QUESTION 136**

- (Topic 1)

When installing a network printer, a technician needs to ensure the printer is available after a network is restarted. Which of the following should the technician set up on the printer to meet this requirement?

- A. Static IP address
- B. Private address
- C. Wi-Fi on the printer
- D. Dynamic addressing

**Answer:** A

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

Assigning a static IP address to a network printer ensures it always retains the same address, allowing users and print servers to consistently reach it even after a reboot or network refresh.

? Option B (Private address): Refers to address ranges (e.g., 192.168.x.x) — doesn't guarantee address persistence.

? Option C (Wi-Fi): Is a connection method, not a method of IP assignment.

? Option D (Dynamic addressing): Via DHCP, which can change over time unless reservations are made (less reliable).

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 3.4: Given a scenario, install and configure printers.

**NEW QUESTION 138**

- (Topic 1)

A user reports that their desktop PC does not turn on. Which of the following components would most likely cause the issue?

- A. PSU
- B. GPU
- C. RAM
- D. CPU

**Answer:** A

**Explanation:**

Comprehensive and Detailed In-Depth Explanation:

If a desktop fails to power on entirely, the most probable cause is a faulty Power Supply Unit (PSU). If there are no lights, fans, or POST beeps, the PSU may have failed, cutting off all power to the motherboard and components.

? Option B (GPU): Could prevent video output, but the system would still power on and beep.

? Option C (RAM): Missing or faulty RAM would cause POST errors but not prevent startup entirely.

? Option D (CPU): A bad CPU may cause POST failure, but the system would usually at least power on.

CompTIA A+ Core 1 Exam Objective Reference:

? Objective 3.5: Given a scenario, troubleshoot problems related to motherboards, RAM, CPU, and power.

=====

#### NEW QUESTION 143

- (Topic 1)

A company deploys server machines in a public cloud. Which of the following cloud service models is this an example of?

- A. Platform as a service
- B. Anything as a service
- C. Infrastructure as a service
- D. Software as a service

**Answer: C**

#### Explanation:

Comprehensive and Detailed Explanation From Exact Extract:

Infrastructure as a Service (IaaS) provides virtualized computing resources over the internet. This includes virtual servers, storage, and networking. Deploying server machines falls under IaaS since the organization is responsible for managing the OS and applications on top of the infrastructure.

Reference: "CompTIA A+ Complete Study Guide" by Quentin Docter – Chapter 8, "Virtualization and Cloud Computing", page 488-490. Also found in the 220-1201 objectives, section 4.1.

#### NEW QUESTION 146

- (Topic 1)

Which of the following best characterizes the use of a virtual machine as a sandbox?

- A. Run an application on multiple workstations without installation.
- B. Explore how an application behaves in a different environment
- C. Migrate a currently used legacy application from physical to virtual
- D. Create a firewall where the sandbox acts as a perimeter network.

**Answer: B**

#### Explanation:

A sandbox in virtualization allows testing an application in an isolated environment to observe its behavior without affecting the host system.

Why Not A (Run an application on multiple workstations): This describes application virtualization, not sandboxing.

Why Not C (Migrate a legacy application): This is about virtualization for legacy support, not testing.

Why Not D (Create a firewall): A firewall does not act as a sandbox for application testing. CompTIA A+ Exam Reference: Core 1 (220-1201), Section 4.2, virtualization and sandboxing.

#### NEW QUESTION 148

- (Topic 1)

A small company wants the ability to print in full color but needs to pay a minimal initial purchase price for the printer. Which of the following is the best option?

- A. Thermal printer
- B. Inkjet printer
- C. Dot matrix printer
- D. Laser printer

**Answer: B**

#### Explanation:

Inkjet printers are the best choice for a small company seeking full-color printing with a minimal initial cost. While they have higher operating costs (due to ink), they are affordable and capable of high-quality color output.

Why Not A (Thermal printer): Thermal printers are not designed for color printing and are typically used for labels or receipts.

Why Not C (Dot matrix printer): Dot matrix printers are outdated, noisy, and do not support full-color printing.

Why Not D (Laser printer): Laser printers have lower running costs but a higher initial purchase price, especially for color models.

CompTIA A+ Exam Reference: Core 2 (220-1102), Section 4.6, printer types.

#### NEW QUESTION 153

- (Topic 1)

Which of the following can a user utilize to share their mobile phone connection with their laptop?

- A. IR
- B. NFC
- C. Wi-Fi Direct
- D. Tethering

**Answer: D**

#### Explanation:

Tethering refers to sharing a mobile phone's internet connection with another device, such as a laptop, either through USB, Bluetooth, or Wi-Fi. Tethering

effectively turns the mobile phone into a personal hotspot for internet access.

Option A (IR): Incorrect. Infrared (IR) is used for short-range communication, such as remote controls, but it does not support internet sharing.

Option B (NFC): Incorrect. Near-field communication (NFC) is used for close-proximity data transfer, not for internet sharing.

Option C (Wi-Fi Direct): Incorrect. Wi-Fi Direct enables device-to-device communication but does not inherently provide internet sharing.

References:

CompTIA A+ Core 1 Objectives: 1.4 (Configure basic mobile-device network connectivity)

#### NEW QUESTION 154

- (Topic 1)

Which of the following devices is designed to monitor and filter incoming and outgoing network traffic?

- A. Switch
- B. Access point
- C. Firewall
- D. Hub

**Answer: C**

#### Explanation:

A firewall monitors and filters incoming and outgoing network traffic based on security rules, protecting the network from unauthorized access and threats.

Why Not A (Switch): A switch connects devices within a network but does not monitor or filter traffic.

Why Not B (Access point): An access point provides Wi-Fi connectivity but does not filter traffic.

Why Not D (Hub): A hub simply broadcasts data to all connected devices without filtering traffic.

CompTIA A+ Exam Reference: Core 1 (220-1201), Section 2.2, network security concepts.

#### NEW QUESTION 155

SIMULATION - (Topic 2)

A technician is installing a wireless access point and is required to run all cabling and make patch cords if necessary.

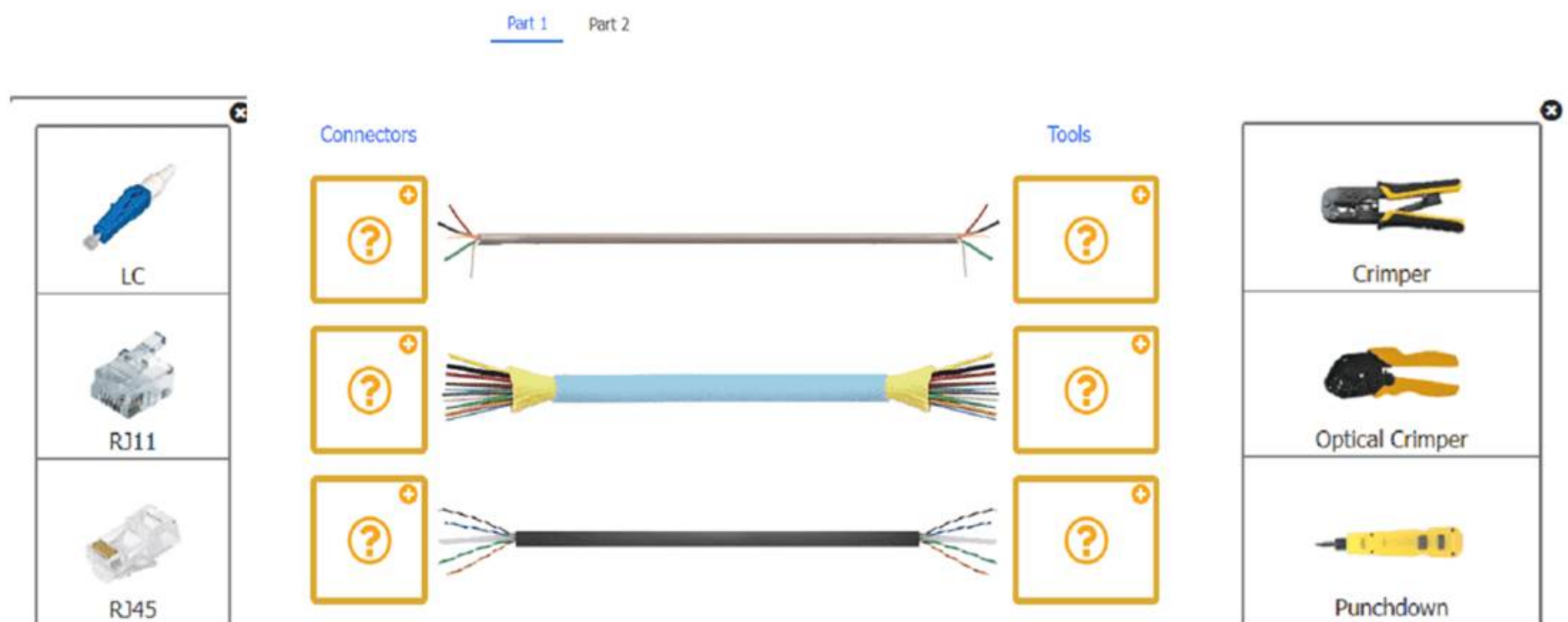
INSTRUCTIONS

Part 1

For each cable type, click the (+) to select the appropriate connector and tool. part 2

An access point was moved and no longer has connectivity. Connect the access point, patch panel, and switch by clicking the (+) to select the appropriate cable end for each corresponding location to create a link.

The link will be visible after making the second selection of each pair. Cable ends may be used multiple times, and all placeholders will be filled.



- A. Mastered
- B. Not Mastered

**Answer: A**

#### Explanation:

Check the exhibit diagram for both parts.



Connectors



Tools



A close-up of several cables  
AI-generated content may be incorrect.  
Part 2



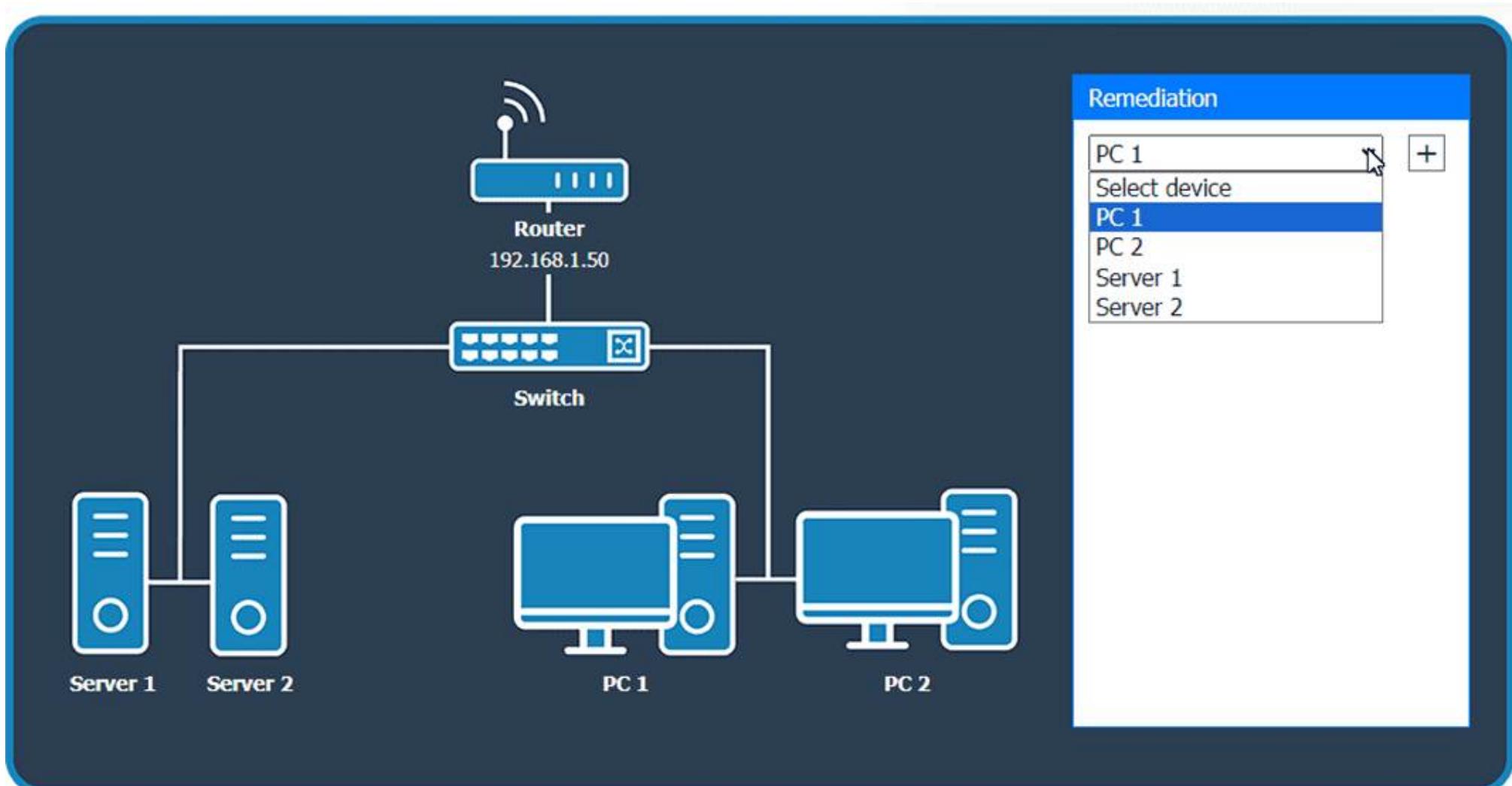
A group of different colored rectangular objects  
AI-generated content may be incorrect.

NEW QUESTION 159

SIMULATION - (Topic 2)

A third-party contractor recently installed a new switch, router, and cabling for a small corporate office. After the installation, users started experiencing issues connecting to resources over the network. INSTRUCTIONS  
Click on each PC and server to review outputs. From the remediation section on the right, select an issue and solution for each device.





## PC 1

Command terminal

IPv4 properties

Internet protocol version 4 (TCP/IPv4) properties

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

- ☐ Obtain an IP address automatically
- ☒ Use the following IP address:
 

IP address: 192.168.1.1

Subnet mask: 255.255.255.0

Default gateway: 192.168.1.50
- ☐ Obtain DNS server address automatically
- ☒ Use the following DNS server addresses:
 

Preferred DNS server: 192.168.1.1

Alternate DNS server: 192.168.1.50
- ☐ Validate settings upon exit

Advanced...

PC 1



Command terminal

IPv4 properties

```
ipconfig /all
```

### Windows IP Configuration

```
Host Name . . . . . : PC1
Primary Dns Suffix . . . . . :
Node Type . . . . . : Peer-Peer
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : corp.lan
```

### Ethernet adapter Ethernet 1:

```
Connection-specific DNS Suffix . : corp.lan
Description . . . . . : Realtek USB GbE Family Controller
Physical Address. . . . . : E1:7C:5C:D4:57:79
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : No
IPv4 Address. . . . . : 192.168.1.1 (Preferred)
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.50
```



## PC 1

### Command terminal

### IPv4 properties

```
Host Name . . . . . : PC1
Primary Dns Suffix . . . . . :
Node Type . . . . . : Peer-Peer
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : corp.lan
```

#### Ethernet adapter Ethernet 1:

```
Connection-specific DNS Suffix . : corp.lan
Description . . . . . : Realtek USB GbE Family Controller
Physical Address. . . . . : E1:7C:5C:D4:57:79
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : No
IPv4 Address. . . . . : 192.168.1.1 (Preferred)
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.50
DNS Servers . . . . . : 192.168.1.1
                        192.168.1.50
NetBIOS over Tcpip. . . . . : Enabled
```

## PC 2

### Command terminal

### IPv4 properties

```
Node Type . . . . . : Peer-Peer
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : corp.lan
```

#### Ethernet adapter Ethernet 1:

```
Connection-specific DNS Suffix . : corp.lan
Description . . . . . : Realtek USB GbE Family Controller
Physical Address. . . . . : 36:9E:94:F0:59:83
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
IPv4 Address. . . . . : 192.168.1.12 (Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : August 28, 2023 9:07:46 AM
Lease Expires . . . . . : August 29, 2023 9:07:46 AM
Default Gateway . . . . . : 192.168.1.50
DHCP Server . . . . . : 192.168.1.1
DNS Servers . . . . . : 192.168.1.1
                        192.168.1.50
```

NetBIOS over Tcpip . . . . . : Enabled



PC 2

Command terminal

IPv4 properties

Internet protocol version 4 (TCP/IPv4) properties

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address:192.168.1.2

Subnet mask:255.255.0.0

Default gateway:192.168.1.50

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server:192.168.1.1

Alternate DNS server:192.168.1.50

☐ Validate settings upon exit

Advanced...



Server 1

Command terminal

IPv4 properties

```

Host Name . . . . . : Server1
Primary Dns Suffix . . . . . :
Node Type . . . . . : Peer-Peer
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : corp.lan

Ethernet adapter Ethernet 1:

    Connection-specific DNS Suffix  . : corp.lan
    Description . . . . . : Realtek USB GbE Family Controller
    Physical Address. . . . . : B2:9F:BB:2C:21:74
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . : No
    IPv4 Address. . . . . : 192.168.1.1 (Preferred)
    Subnet Mask . . . . . : 255.255.255.255
    Default Gateway . . . . . : 192.168.1.50
    DNS Servers . . . . . : 192.168.1.1
                           192.168.1.50
    NetBIOS over Tcpip. . . . . : Enabled

```

Server 1

Command terminal

IPv4 properties

Internet protocol version 4 (TCP/IPv4) properties

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address:

192.168.1.1

Subnet mask:

255.255.255.0

Default gateway:

192.168.1.50

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server:

192.168.1.1

Alternate DNS server:

192.168.1.50

☐ Validate settings upon exit

Advanced...

## Server 2



### Command terminal

### IPv4 properties

```
Host Name . . . . . : Server2
Primary Dns Suffix . . . . . :
Node Type . . . . . : Peer-Peer
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : corp.lan
```

### Ethernet adapter Ethernet 1:

```
Connection-specific DNS Suffix . : corp.lan
Description . . . . . : Realtek USB GbE Family Controller
Physical Address. . . . . : AC:5D:46:89:72:6D
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : No
IPv4 Address. . . . . : 192.168.1.2 (Preferred)
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.5
DNS Servers . . . . . : 192.168.1.1
                        192.168.1.50
NetBIOS over Tcpip. . . . . : Enabled
```



**Server 2**
✕

Command terminal
**IPv4 properties**

**Internet protocol version 4 (TCP/IPv4) properties**

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically
   
☐ Use the following IP address:

|                  |               |
|------------------|---------------|
| IP address:      | 192.168.1.2   |
| Subnet mask:     | 255.255.255.0 |
| Default gateway: | 192.168.1.50  |

☐ Obtain DNS server address automatically
   
☐ Use the following DNS server addresses:

|                       |              |
|-----------------------|--------------|
| Preferred DNS server: | 192.168.1.1  |
| Alternate DNS server: | 192.168.1.50 |

☐ Validate settings upon exit

Advanced...

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Looking at the network configurations and outputs from both PCs and servers, here are the possible issues and solutions:

\* 1. PC 1

Issue: The IP address for PC1 is 192.168.1.1, which conflicts with Server 1 (which also uses 192.168.1.1).

Solution: Change the IP address on PC1 to a unique one within the range, like 192.168.1.3.

\* 2. PC 2

Issue: PC 2 is configured with 192.168.1.2, which conflicts with Server 2 that has the same IP address.

Solution: Update the IP address on PC 2 to something unique, like 192.168.1.4.

\* 3. Server 1

Issue: The IP address for Server 1 is 192.168.1.1, which conflicts with PC1.

Solution: Since Server 1 and PC1 are using the same IP address, change one of them. For Server 1, you could change the IP address to 192.168.1.5.

\* 4. Server 2

Issue: Server 2 is using the IP address 192.168.1.2, which conflicts with PC2. Solution: Update Server 2 to use a different IP address, such as 192.168.1.6.

General Remediation:

The primary problem here is overlapping IP addresses, leading to connectivity issues. Each device on the network must have a unique IP address. After making these changes, ensure that all devices can communicate properly by testing the connection between devices and verifying they can access shared resources.

**NEW QUESTION 163**

SIMULATION - (Topic 2)

Laura, a customer, has instructed you to configure her home office wireless access point.

She plans to use the wireless network for finances and has requested that the network be setup with the highest encryption possible.

Additionally, Laura knows that her neighbors have wireless networks and wants to ensure that her network is not being interfered with by the other networks.

She requests that the default settings be changed to the following.

Wireless Name: HomeWiFi Shared Key: CompTIA Router Password: Secure\$1



Finally, Laura wants to ensure that only her laptop and Smartphone can connect to the network.

Laptop: IP Address 192.168.1.100 Hardware Address: 00:0A:BF:03:C4:54 Smartphone: IP Address 192.168.1.101 Hardware Address: 09:2C:D0:22:3F:11

#### INSTRUCTIONS

Configure Laura's wireless network using the network adapter window.

If at any time you would like to bring back the initial state of the situation, please click the Reset All button.

### Laura's Wireless Configuration

**WIRELESS SETUP**
**NETWORK FILTER**
**ADMINISTRATOR TOOLS**

#### Wireless Network Settings

Enable Wireless: ☒

Wireless Network Name:  (Also called the SSID)

Wireless Channel:

Disable SSID Broadcast: ☐

802.11g Only Mode: ☐

#### Wireless Security Mode


Security Mode:




#### WPA2

Passphrase:

Confirmed Passphrase:

#### Laura's House



- 
Wireless Network Name: **Default**  
Security Mode: **Open**  
Wireless Channel: **11**
- 
Wireless Network Name: **MyWi**  
Security Mode: **WEP**  
Wireless Channel: **6**
- 
Wireless Network Name: **PatsWiFi**  
Security Mode: **WEP**  
Wireless Channel: **11**

#### Laura's Wireless Configuration

**WIRELESS SETUP**
**NETWORK FILTER**
**ADMINISTRATOR TOOLS**

Please enter the same password into both boxes for confirmation.

Password:

Verify Password:



### Laura's Wireless Configuration

**WIRELESS SETUP****NETWORK FILTER****ADMINISTRATOR TOOLS**

#### Wireless Network Settings

Enable Wireless:

☐

Wireless Network Name:

default

(Also called the SSID)

Wireless Channel:

6

Disable SSID Broadcast:

☐

802.11g Only Mode:

☐

#### Wireless Security Mode

Security Mode:

Disable Wireless Security (not recommended)

### Laura's Wireless Configuration

**WIRELESS SETUP****NETWORK FILTER****ADMINISTRATOR TOOLS**

Turn MAC Filtering ON:

☐

Allow the following MAC Addresses

☐

☐

☐

☐

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**  
solution as



Wireless Configuration



Wireless Setup    Network Filter    Administrator Tools

WIRELESS NETWORK SETTINGS:

Enable Wireless:

☒

Wireless Network Name:

HomeWiFi

(Also called the SSID)

Wireless Channel:

1

Disable SSID Broadcast:

☐

802.11g Only Mode:

☐

WIRELESS SECURITY MODE:

Security Mode:

Enable WPA2 Wireless Security (enhanced)

WPA2:

Passphrase:

CompTIA

Confirmed Passphrase:

CompTIA

Save Settings

A screenshot of a network settings  
AI-generated content may be incorrect.





Wireless Configuration



Wireless Setup

Network Filter

Administrator Tools

☒ Turn MAC Filtering ON

Allow the following MAC Addresses

MAC Address

☒ 00:0A:BF:03:C4:54

☒ 09:2C:D0:22:3F:11

☐

☐

Save Settings

A screenshot of a computer  
AI-generated content may be incorrect.

The image shows a 'Wireless Configuration' window with three tabs: 'Wireless Setup', 'Network Filter', and 'Administrator Tools'. The 'Administrator Tools' tab is active, displaying the 'ADMIN PASSWORD' section. It instructs the user to 'Please enter the same password into both boxes for confirmation.' There are two input fields: 'Password:' and 'Verify Password:', both containing the text 'Secure\$1'. A 'Save Settings' button is located at the bottom right of the window.

A screenshot of a computer  
AI-generated content may be incorrect.

#### NEW QUESTION 168

SIMULATION - (Topic 2)

A small ISP has hired a new technician Joe, the new technician, is being trained to configure customers\* home networks The trailing instructor gives me technician a starter kit with cables, cable ends, and other network equipment and asks mm to build a working network.

The computer should be connected to have internet connectivity and the phone should be connected to have a dial tone.

#### INSTRUCTIONS

Use the appropriate cables. cable ends, tools and equipment to configure the network ana connect an components accordingly

There are 3 steps and the simulation starts on step 1.



**SOHO Starter Kit** Step 1 Step 2 Show Question Reset All Answers

**Connectors**

- RJ11
- RJ45
- F Connector

**Tools**

- Wire Cutters
- Wire Strippers
- Screwdriver

**SOHO Starter Kit** Step 1 Step 2 Show Question Reset All Answers

**Cables**

- RJ45 to RJ45
- F to F
- RJ45 to F

**Wall ISP Service Outlet**

**POTS**

**SOHO Router**

**Cable Modem**

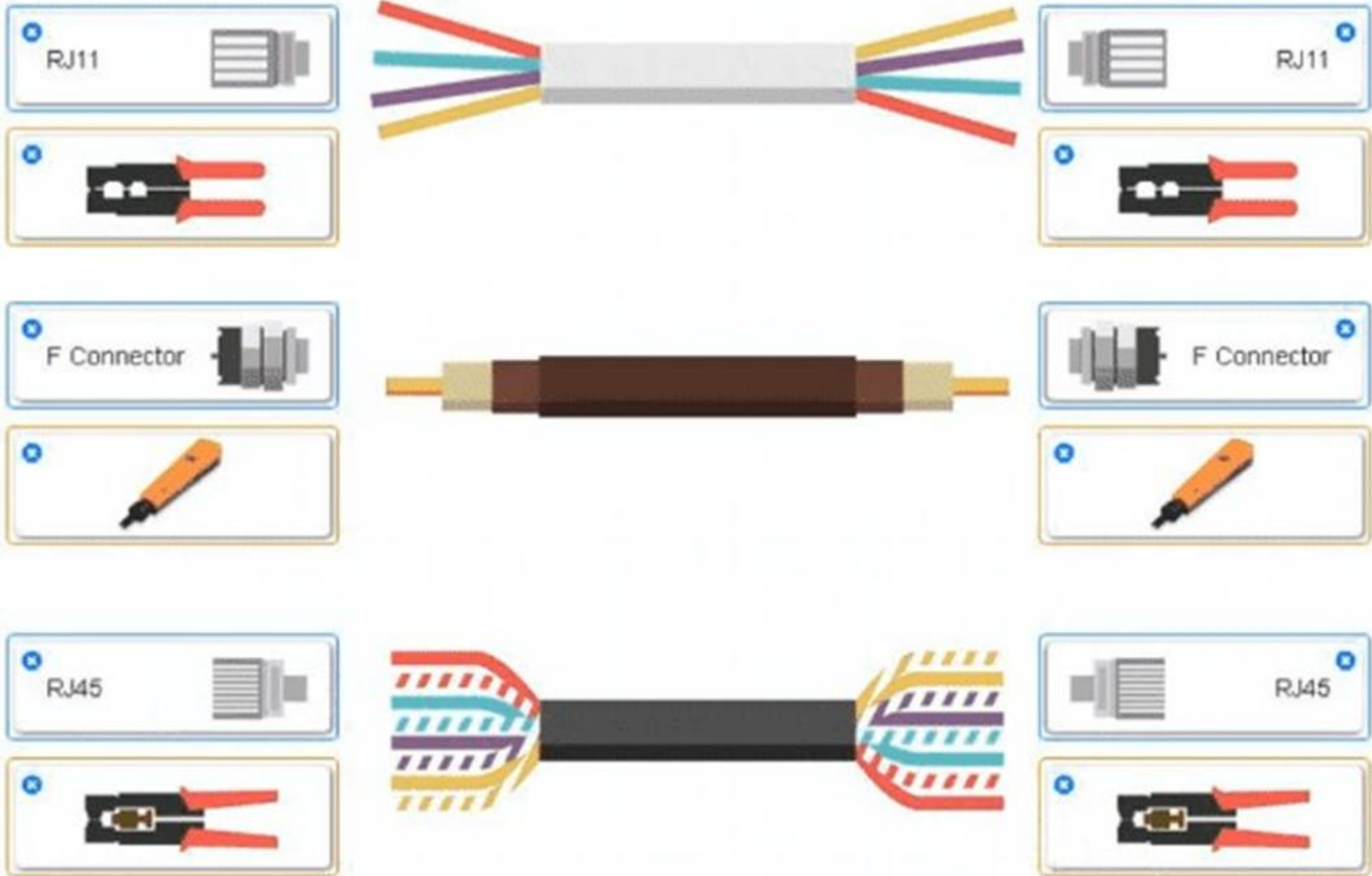
**Home PC**

- A. Mastered
- B. Not Mastered

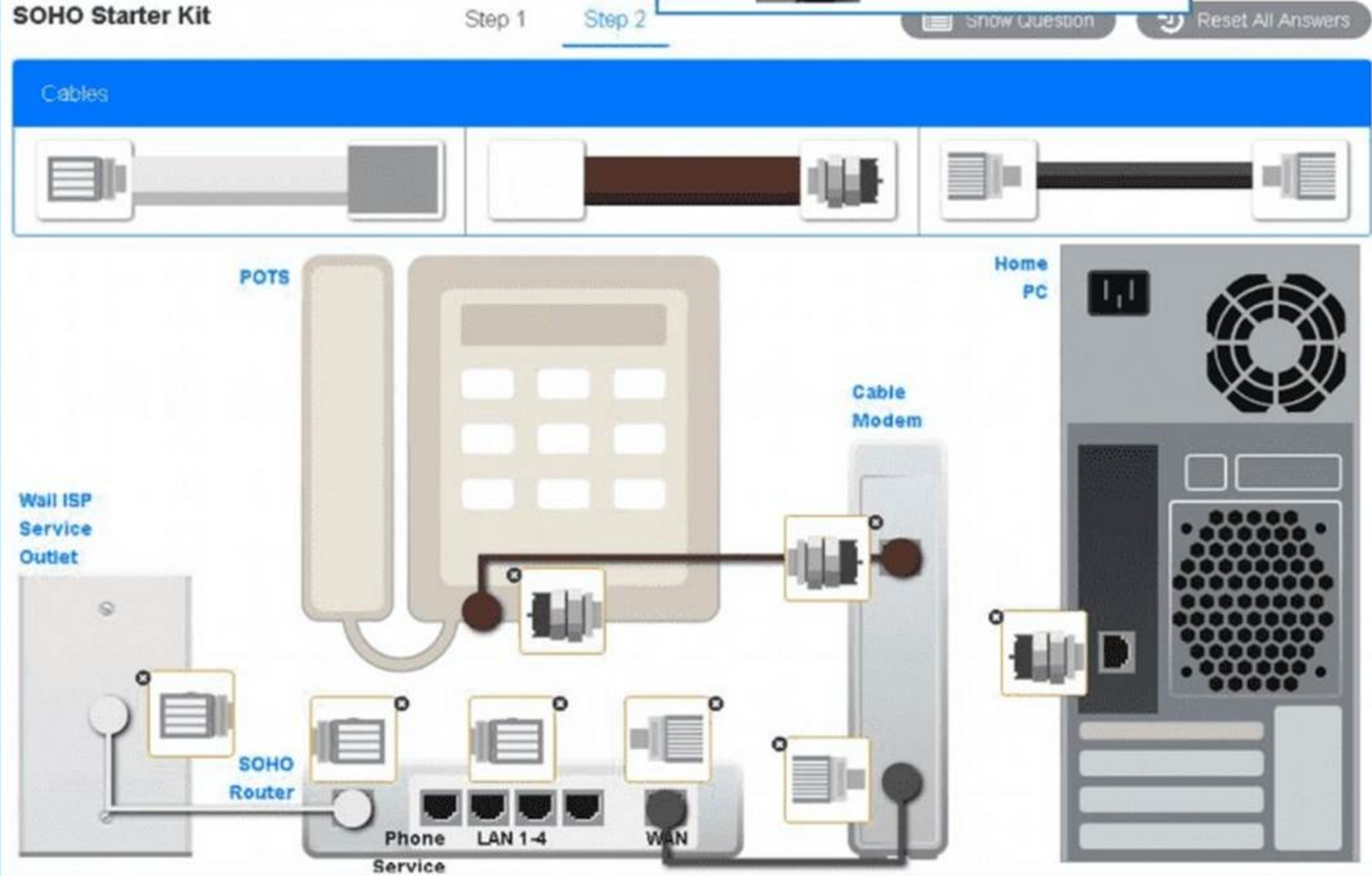
**Answer:** A

**Explanation:**

Answer of both steps below.



A group of wires with different colors  
AI-generated content may be incorrect.



A screenshot of a computer  
AI-generated content may be incorrect.



**NEW QUESTION 169**

SIMULATION - (Topic 2)

A user reports poor performance on the application server.

**INSTRUCTIONS**

Click on Server 1 and Server 2 and review the information presented in each chart to determine which drives need to be replaced.

Select the appropriate replacement drive that should be used, for the least performance degradation to the server.

If at any time you would like to bring back the initial state of the simulation, please click the

Reset All button.

The screenshot displays a simulation interface for two servers, Server 1 and Server 2, each with a RAID configuration. The interface includes a visual representation of the server racks and a table below summarizing the RAID details.

| Status | Name     | State    | Layout | Bus protocol | Media | Read policy   | Write policy | Stripe element size | Disk cache policy |
|--------|----------|----------|--------|--------------|-------|---------------|--------------|---------------------|-------------------|
|        | Server 1 | Ready    | RAID-5 | SAS          | HDD   | No read ahead | Write back   | 64KB                | Disabled          |
|        | Server 2 | Degraded | RAID-5 | SAS          | HDD   | No read ahead | Write back   | 64KB                | Disabled          |

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

The degraded status on Server 2 indicates a RAID-5 issue, typically due to a failed or failing drive. In RAID-5 configurations, when one drive fails, the system can still operate but with reduced performance as parity data is used to rebuild missing data on-the-fly. Recommended Replacement Drive:

To minimize performance degradation, the replacement drive should be:

SAS HDD with the same specifications (64KB stripe size, no read-ahead, and write-back policy).

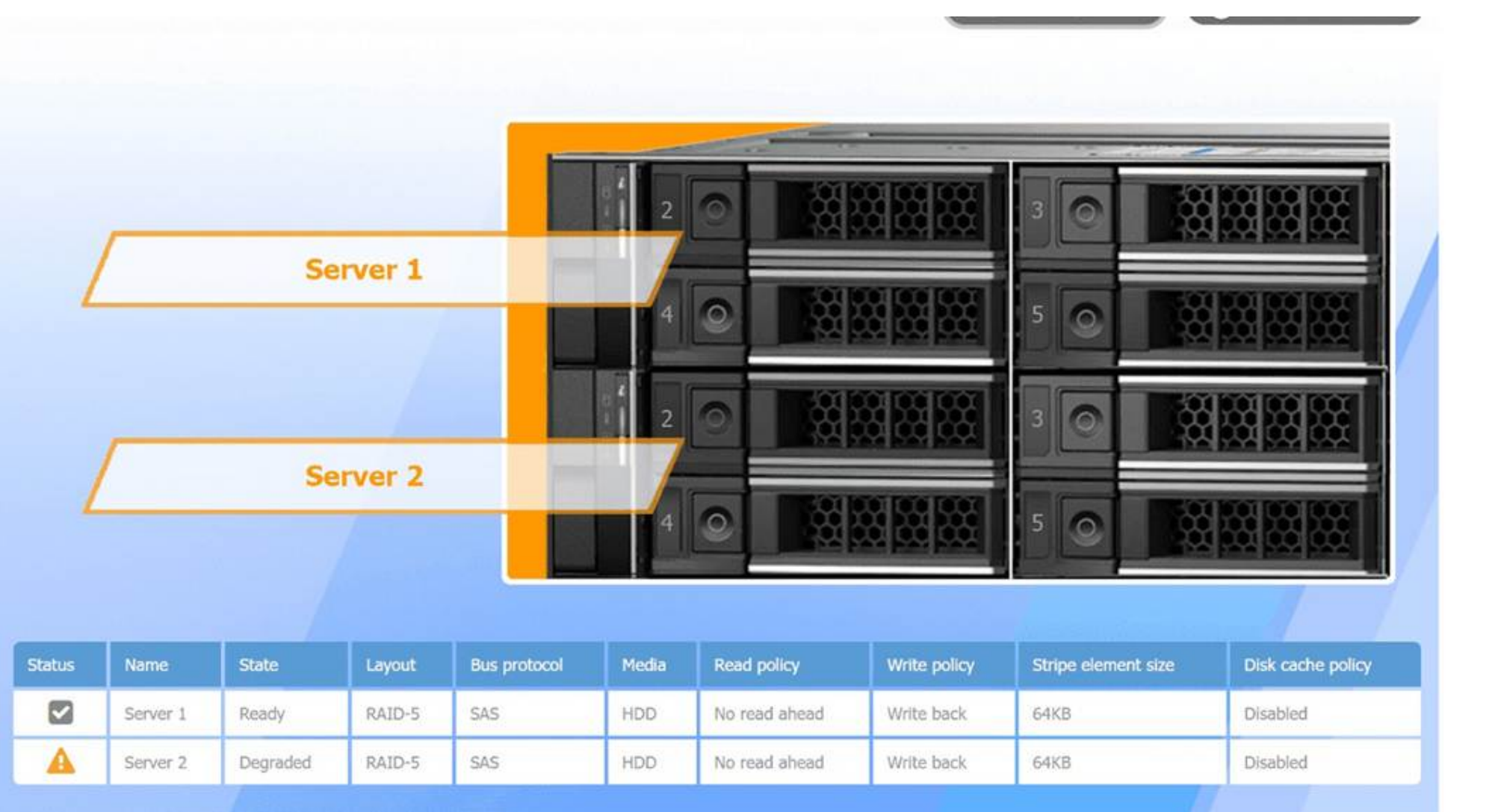
Matching the configuration exactly ensures seamless integration and optimizes recovery speed in the RAID-5 array.

In RAID-5, degraded performance is expected when one drive fails, as parity data needs to rebuild missing information during each read/write process. Replacing the failed drive restores the RAID array to optimal status, reducing the load on existing drives and returning the system to normal read/write performance. The write-back policy and disabled disk cache settings are designed to reduce latency and increase efficiency, essential for handling real-time applications.

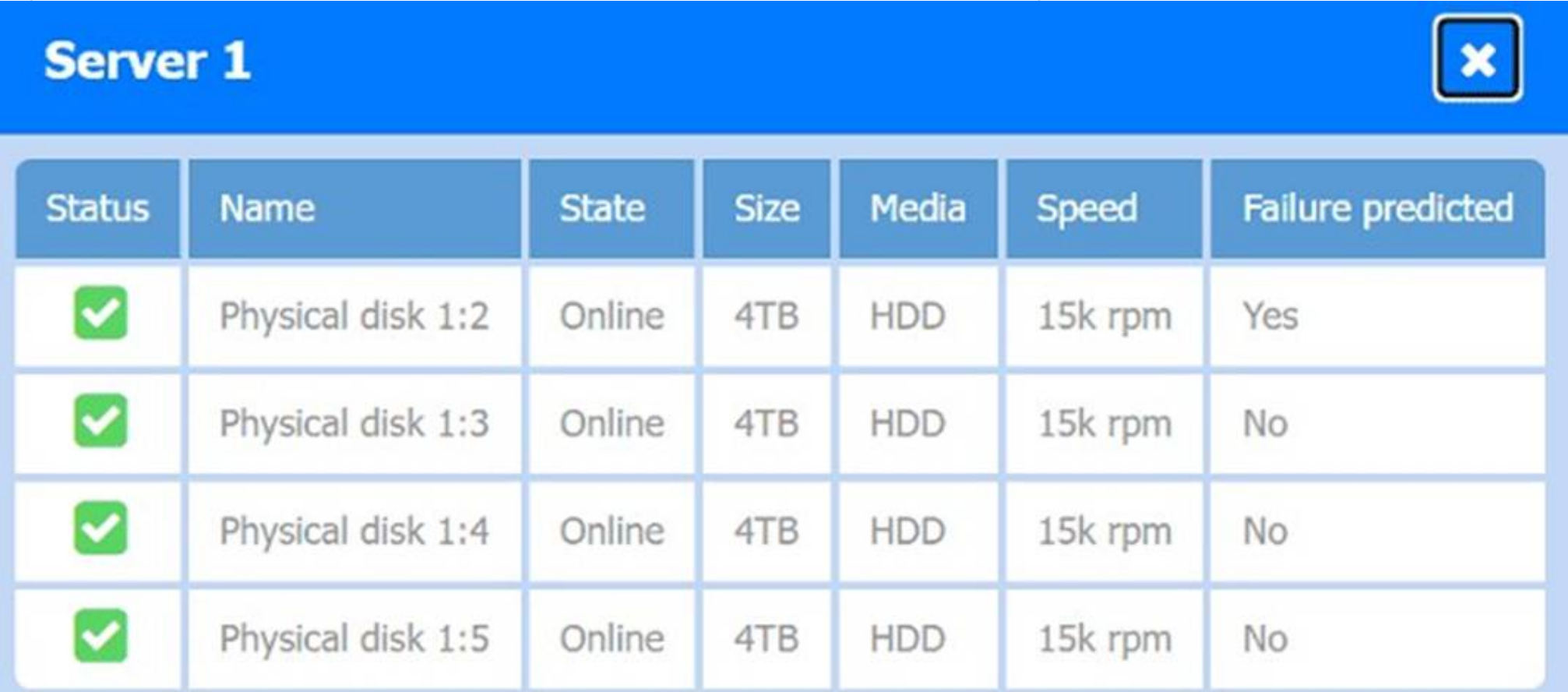
A user reports poor performance on the application server.

**INSTRUCTIONS**

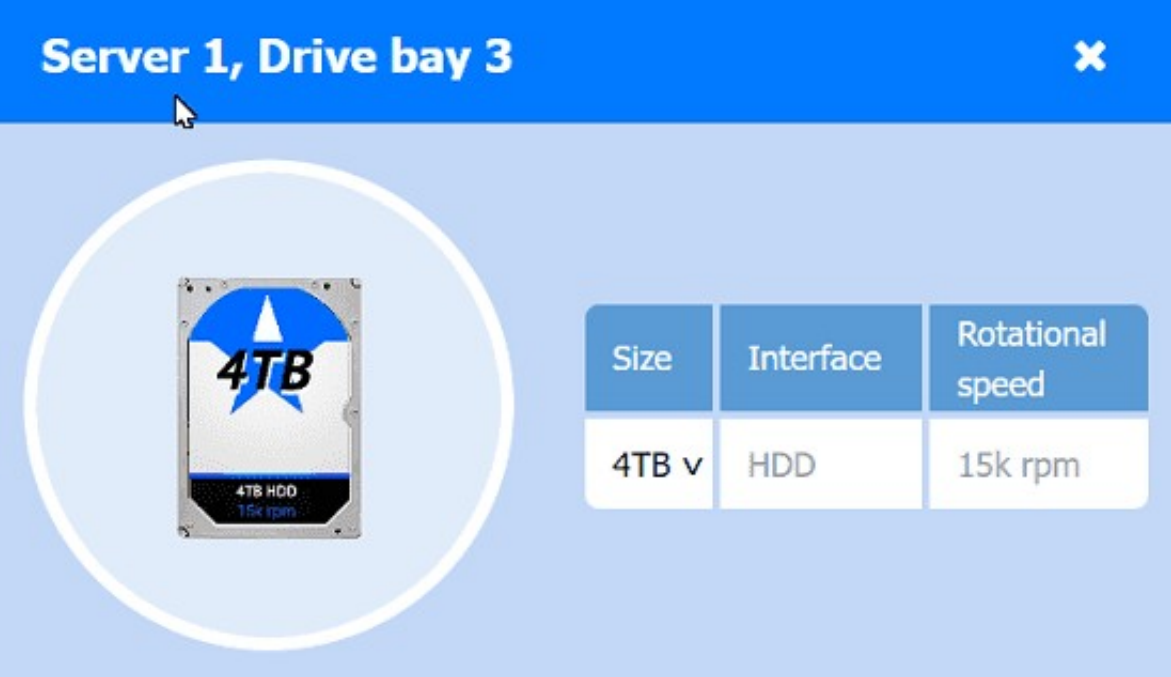
Click on Server 1 and Server 2 and review the information presented in each chart to determine which drives need to be replaced. Select the appropriate replacement drive that should be used, for the least performance degradation to the server.



A computer server with many black and silver parts  
AI-generated content may be incorrect.A computer server with many black boxes Description automatically generated with medium confidence




A screen shot of a computer  
AI-generated content may be incorrect.A screen shot of a computer Description automatically generated



A computer screen shot of a computer  
AI-generated content may be incorrect.A computer screen shot of a computer Description automatically generated




Server 1, Drive bay 4



| Size  | Interface | Rotational speed |
|-------|-----------|------------------|
| 4TB v | HDD       | 15k rpm          |

A computer screen shot of a computer  
AI-generated content may be incorrect.A computer screen shot of a computer Description automatically generated


Server 1, Drive bay 5



| Size  | Interface | Rotational speed |
|-------|-----------|------------------|
| 4TB v | HDD       | 15k rpm          |

A computer screen shot of a computer  
AI-generated content may be incorrect.A computer screen shot of a computer Description automatically generated

Server 2, Drive bay 2




| Size  | Interface | Rotational speed |
|-------|-----------|------------------|
| 2TB v | HDD       | 7200rpm          |
| 8TB   | SAS       | 5400rpm          |
| 4TB   | SATA      | 7200rpm          |
| 2TB   | SATA      | SSD              |
| 1TB   | SAS       | 10k rpm          |
| 4TB   | SAS       | 15k rpm          |
| 4TB   | SAS       | 10k rpm          |
| 4TB   | SATA      | SSD              |

| Layout | Bus protocol | Media |
|--------|--------------|-------|
| RAID-5 | SAS          | HDD   |
| RAID-5 | SAS          | HDD   |

A screenshot of a computer  
AI-generated content may be incorrect.A screenshot of a computer Description automatically generated

Server 2, Drive bay 3



| Size  | Interface | Rotational speed |
|-------|-----------|------------------|
| 2TB v | HDD       | 7200rpm          |
| 8TB   | SAS       | 5400rpm          |
| 4TB   | SATA      | 7200rpm          |
| 2TB   | SATA      | SSD              |
| 1TB   | SAS       | 10k rpm          |
| 4TB   | SAS       | 15k rpm          |
| 4TB   | SAS       | 10k rpm          |
| 4TB   | SATA      | SSD              |

A screenshot of a computer  
AI-generated content may be incorrect.A screenshot of a computer Description automatically generated

NEW QUESTION 170  
.....

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