

# CompTIA

## Exam Questions 220-1101

CompTIA A+ Certification Exam: Core 1



#### NEW QUESTION 1

- (Topic 2)

A startup company is outgrowing its current office space and is requiring employees to work remotely. The company must comply with government-enforced requirements to safeguard all aspects of data, so the IT department plans to maintain complete control over users' operating systems. Which of the following should the IT department implement?

- A. VDI
- B. IaaS
- C. VPN
- D. SaaS

**Answer:** A

#### Explanation:

The IT department should implement VDI. Virtual Desktop Infrastructure (VDI) is a technology that allows users to access a desktop operating system from a remote location. VDI provides complete control over users' operating systems, which is important for safeguarding data. VDI also provides a secure way to access data from remote locations, which is important for compliance with government-enforced requirements<sup>1</sup>.

#### NEW QUESTION 2

- (Topic 2)

Which of the following is a method that can be used to securely connect a remote user's laptop to a corporate server?

- A. WAN
- B. VPN
- C. SSL
- D. DHCP

**Answer:** B

#### Explanation:

A Virtual Private Network (VPN) is a secure method for connecting a remote user's laptop to a corporate server. VPNs use encryption to protect data transmitted over the internet.

#### NEW QUESTION 3

- (Topic 2)

A user on the marketing team uses various multimedia applications that consume a lot of memory. The user needs to install more RAM to run these applications effectively. When the user opens the computer case, the user sees four slots in two sets of colors. Which of the following memory types is MOST likely required?

- A. Dual-channel
- B. Triple-channel
- C. Single-channel
- D. Quad-channel
- E. Error correction code RAM

**Answer:** A

#### Explanation:

The two sets of colors on the motherboard indicate that it supports dual-channel memory, which doubles the bandwidth available to the memory controller. Dual-channel memory requires two identical memory modules to be installed in pairs in the correct slots to work effectively. In this case, the user can install two identical RAM modules to enable dual-channel memory, which will provide better performance when using multimedia applications that consume a lot of memory.

#### NEW QUESTION 4

- (Topic 2)

An end user discovered that the touch-screen features on a Windows device have stopped working. Which of the following should a technician check?

- A. Performance monitor
- B. Tablet/PC settings
- C. System configuration
- D. Display settings

**Answer:** B

#### Explanation:

If the touch-screen features on a Windows device have stopped working, a technician should check the Tablet/PC settings. The Tablet/PC settings contain options for configuring the touch-screen features on a Windows device. By checking the Tablet/PC settings, the technician can ensure that the touch-screen features are enabled and configured correctly.

If the touch-screen features on a Windows device have stopped working, a technician should check the Tablet/PC settings. The touch-screen settings may have been disabled or there may be a driver issue that needs to be resolved. References: CompTIA A+ Certification Exam Guide, pg. 536

#### NEW QUESTION 5

- (Topic 2)

Which of the following types of devices MOST often uses a Thunderbolt cable?

- A. Linux PC
- B. Android mobile
- C. Apple laptop

D. Chromebook

**Answer:** C

**Explanation:**

Thunderbolt cables are commonly used to connect Apple laptops to external displays or other devices. While Thunderbolt is available on some Windows and Chromebook devices, it is most commonly associated with Apple products. References:  
<https://www.intel.com/content/www/us/en/products/docs/io/thunderbolt/thunderbolt-technology-general.html>

**NEW QUESTION 6**

- (Topic 2)

Which of the following is used to implement network security policies for an environment?

- A. Managed switch
- B. Repeater
- C. Firewall
- D. Gateway

**Answer:** C

**Explanation:**

It is designed to protect an organization's network infrastructure and data from unauthorized access, while allowing legitimate traffic to pass through. Firewalls can be configured to enforce security policies that block certain types of traffic, limit access to specific network resources, and prevent attacks such as malware and phishing.

A firewall is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules. It establishes a barrier between a trusted internal network and an untrusted external network, such as the Internet. Firewalls are used to implement network security policies for an environment by controlling access to the network and protecting it from unauthorized access.

A firewall is used to implement network security policies. It monitors incoming and outgoing traffic based on predetermined security rules and can block traffic that does not meet the defined criteria. References: CompTIA A+ Certification All-in-One Exam Guide, Tenth Edition by Mike Meyers (Chapter 6, page 243)

**NEW QUESTION 7**

- (Topic 2)

A hardware technician is configuring a laptop, and the network administrator requires the network settings to be static. The technician successfully pings the servers by IP address but cannot ping the UNC path. Which of the following is the cause of this issue?

- A. Domain Name System
- B. Gateway
- C. Subnet
- D. IP address

**Answer:** A

**Explanation:**

The cause of the issue is likely due to a DNS resolution issue. While the technician can ping the servers by IP address, they cannot ping the UNC path, indicating an issue with the name resolution. This can be resolved by configuring the correct DNS server settings.

**NEW QUESTION 8**

- (Topic 2)

A technician made several upgrades to a computer and then determined the power supplied by the PSU is insufficient. Which of the following would MOST likely cause the insufficiency? (Select TWO).

- A. Replacing the HDD with an SSD
- B. Upgrading the firmware
- C. Adding an optical drive
- D. Adding more RAM
- E. Adding a CMOS battery
- F. Upgrading the graphics card

**Answer:** DF

**Explanation:**

If a technician made several upgrades to a computer and then determined the power supplied by the PSU is insufficient, the upgraded graphics card and adding more RAM would most likely cause the insufficiency. Upgrading the graphics card and adding more RAM can increase the power consumption of a computer, which can cause the power supplied by the PSU to be insufficient.

Adding more RAM and upgrading the graphics card are the most likely causes of the insufficiency of power supplied by the PSU. These upgrades require more power to operate efficiently and can cause the PSU to become insufficient.

**NEW QUESTION 9**

- (Topic 2)

A technician is adding one more line at the demarcation point. Which of the following tools would be MOST useful to accomplish this task?

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

**Answer:** B

**Explanation:**

Punchdown tools are used to make connections between wires in a 66/110 block at the demarcation point. The tool is used to insert the wire into the appropriate holes in the block, and it can be used to add additional lines to the demarcation point. The other options are not the correct tools for adding lines to the demarcation point. A toner is used to identify cable pairs, a network tap is used to monitor network traffic, and a crimper is used to terminate cables.

**NEW QUESTION 10**

- (Topic 2)

Which of the following allows all VMs in a virtual environment to have RAM allocated for use?

- A. Measured service
- B. Containerization
- C. Synchronization
- D. Resource pooling

**Answer:** D

**Explanation:**

The concept described in the question is related to virtualization and resource management in a virtual environment. The approach that allows all virtual machines (VMs) to have memory (RAM) allocated for use is known as resource pooling. Therefore, the correct answer is D: "Resource pooling." This approach allows resources to be allocated dynamically to VMs based on their current needs, and ensures that resources are used efficiently in the virtual environment.

Resource pooling is a technique used in virtualization to share resources among multiple virtual machines (VMs). With resource pooling, RAM can be allocated dynamically to VMs as needed, allowing all VMs in a virtual environment to have RAM allocated for use. References:

[https://en.wikipedia.org/wiki/Resource\\_pooling](https://en.wikipedia.org/wiki/Resource_pooling)

**NEW QUESTION 10**

- (Topic 1)

A technician is tasked with installing additional RAM in a desktop computer. Which of the following types of RAM is MOST likely to be used?

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

**Answer:** B

**Explanation:**

DDR3 is the most commonly used RAM type in modern desktop computers. It is faster and more energy efficient than its predecessors, and offers larger capacity modules. References: CompTIA A+ Certification Exam Guide, Ninth Edition, Chapter 5

**NEW QUESTION 14**

- (Topic 1)

A user brings an older laptop to the help desk and reports issues with the keyboard. Upon

inspection, the technician does not see any external damage but notices that many keystrokes do not register in a word processor. The laptop works fine when the technician tests it with an external keyboard. Which of the following actions would MOST likely resolve the issue?

- A. Disable the sticky keys feature.
- B. Clean the keyboard.
- C. Reset the BIOS settings to default.
- D. Charge the laptop.

**Answer:** B

**Explanation:**

The most likely action that would resolve the issue is to clean the keyboard. Sometimes dust, hair, and other debris can affect keyboard functionality. The technician can try to clean the keyboard as much as possible, which may be enough to get the keyboard back in working order

**NEW QUESTION 16**

- (Topic 2)

A user is researching hard drives to upgrade a PC and has decided to purchase a NVMe drive. Which of the following Should the user confirm are available on the PC before making the purchase? (Select TWO).

- A. SATA
- B. M.2
- C. PCIe
- D. SAS
- E. SCSI
- F. DRAM

**Answer:** BC

**Explanation:**

NVMe (Non-Volatile Memory Express) drives are high-speed solid-state drives that utilize the PCIe (Peripheral Component Interconnect Express) interface to connect to the motherboard. Before purchasing an NVMe drive, the user should confirm that the PC has an available M.2 slot for the drive and that the PC has a PCIe interface for the M.2 slot. SATA (Serial ATA) is an older interface for hard drives and is not compatible with NVMe drives. SAS (Serial Attached SCSI) is a newer interface for hard drives and is typically used for enterprise-level storage systems. SCSI (Small Computer System Interface) is a parallel interface for hard drives that is primarily used in high-end workstations and servers. DRAM (Dynamic Random Access Memory) is a type of memory commonly used in computers, but it is not relevant to the storage of data on a hard drive.

Reference: CompTIA A+ Core 1 Exam Guide, page 267.

#### NEW QUESTION 18

- (Topic 1)

An online retailer would like to add capacity to support increased sales. Additional servers have been installed. Which of the following should be used to ensure each new server is being properly utilized?

- A. Virtualization
- B. Clustering
- C. Load balancer
- D. Round-robin DNS

**Answer: C**

#### Explanation:

<https://www.resonatenetworks.com/2020/04/29/clustering-vs-load-balancing- whats-the-difference/>

A load balancer distributes network traffic evenly across multiple servers, ensuring each server is being properly utilized. This helps to prevent overloading of any individual server, which can cause downtime or slow response times for users. In this scenario, adding a load balancer would be the best way to ensure the new servers are being properly utilized. References: CompTIA A+ Certification Exam: Core 1 - Page 181

#### NEW QUESTION 20

- (Topic 1)

A technician installed a Cat 5 UTP cable approximately 275ft (84m) from a network switch in an office to a workstation located on a factory floor. The technician sees both a flashing green LED and a flashing orange LED on the workstation's NIC. Which of the following should the technician do FIRST?

- A. Check for loose connections, pinched bends, and physical damage.
- B. Install a powered hub as close as possible to the halfway point in the Cat 5 UTP cable run.
- C. Replace the entire run of Cat 5 UTP cable with Cat 5 STP cable.
- D. Upgrade the entire cable run to multimode fiber.

**Answer: A**

#### Explanation:

The flashing green and orange LEDs on the NIC indicate connection issues. The technician should first check for loose connections, pinched bends, and physical damage, which are the most common causes of connection problems. References: CompTIA A+ Certification Exam Guide, Ninth Edition, Chapter 14

#### NEW QUESTION 22

- (Topic 1)

Which of the following describes the main difference between T568A and T568B cabling standards?

- A. The T568B data transfer rate is higher than T568A.
- B. The green and the orange cables are interchanged.
- C. T568A is used in blue cables, and T568B is used in green cables.
- D. The standards use different cable connectors.

**Answer: B**

#### Explanation:

The main difference between T568A and T568B cabling standards is that the green and orange cables are interchanged<sup>12</sup>. T568A is designed for backward compatibility with older telephone wires, while T568B is designed for better signal isolation and noise protection for newer networking systems and products<sup>3</sup>. T568A is used in blue cables, and T568B is used in green cables<sup>1</sup>. The standards use the same cable connectors<sup>3</sup>.

#### NEW QUESTION 26

- (Topic 1)

A technician is monitoring all outbound traffic in a SOHO. Which of the following is the MOST cost-effective solution to monitor the traffic?

- A. Spectrum analyzer
- B. Network tap
- C. Lookback plug
- D. Toner probe

**Answer: B**

#### Explanation:

A network tap is used to intercept the signals passing over a cable and send them to a packet or protocol analyzer. Taps are either powered or unpowered:

#### NEW QUESTION 29

- (Topic 1)

A technician replaced a motherboard on a server, and now the 64-bit hypervisor is not loading correctly. Which of the following needs to be enabled for the hypervisor to run?

- A. Hardware prefetcher
- B. Hyperthreading
- C. vPro
- D. VT-d

**Answer: D**

#### Explanation:

[https://techlibrary.hpe.com/docs/iss/proliant-gen10-uefi/s\\_enabling\\_VT- d.html](https://techlibrary.hpe.com/docs/iss/proliant-gen10-uefi/s_enabling_VT- d.html)

Enabling VT-d (Virtualization Technology for Directed I/O) in the server's BIOS settings is required for the hypervisor to run properly. References: CompTIA A+ Certification Exam Guide, Ninth Edition, Chapter 11

#### NEW QUESTION 30

- (Topic 1)

A user acquired a new workstation and is attempting to open multiple large Excel files simultaneously. The user is not experiencing the expected performance when executing such large requests. Which of the following should a technician do FIRST?

- A. Increase the swap partition.
- B. Upgrade the CPU in the workstation.
- C. Upgrade the power supply in the workstation.
- D. Upgrade the RAM in the workstation.

**Answer:** D

#### Explanation:

Opening multiple large Excel files simultaneously requires a large amount of RAM. Upgrading the RAM in the workstation should improve performance. References: CompTIA A+ Certification Exam Guide, Ninth Edition, Chapter 9

#### NEW QUESTION 31

- (Topic 1)

A technician is receiving reports that the entire office sporadically loses network connectivity throughout the day. The technician determines the root cause to be EMI. Which of the following cable mediums would be the MOST cost effective without sacrificing system performance?

- A. Coaxial
- B. Shielded Cat 6
- C. Plenum Cat 5e
- D. Multimode fiber

**Answer:** B

#### Explanation:

In this situation, the MOST cost-effective cable medium that would not sacrifice system performance would be B. Shielded Cat 6. Electromagnetic interference (EMI) can disrupt network connectivity by interfering with the signals transmitted over network cables. Shielded Cat 6 cables are designed to provide protection against EMI by incorporating a layer of shielding material around the cable's conductors. This shielding helps to prevent EMI from interfering with the signals transmitted over the cable.

#### NEW QUESTION 35

- (Topic 1)

An organization maintains various record types, including health and criminal justice records. Which of the following cloud environments is the organization MOST likely to use to limit the attack surface?

- A. Public
- B. Hybrid
- C. Community
- D. Private

**Answer:** D

#### Explanation:

Private cloud environments are designed for use by a single organization and offer the greatest control over security and access to data. They are typically used for sensitive or confidential data, such as health and criminal justice records. Public cloud environments are shared by multiple organizations and offer less control over security and access to data. Hybrid cloud environments combine public and private clouds, while community clouds are shared by multiple organizations with similar needs. References: CompTIA A+ Certification Exam: Core 1 - Page 234

#### NEW QUESTION 38

- (Topic 1)

A user failed to gain access to a building's entrance after security measures at the entrance were upgraded last week. The company implemented the 13.56MHz frequency short band, and users can now utilize their mobile devices to authenticate. Which of the following has to be enabled for the mobile device to authenticate?

- A. Bluetooth
- B. Biometrics
- C. NFC
- D. PIN

**Answer:** C

#### Explanation:

NFC (Near Field Communication) is a technology used for short-range wireless communication between devices, typically used for contactless payments and authentication. In this scenario, the 13.56MHz frequency short band was implemented, and users can authenticate using their mobile devices, which requires NFC to be enabled on the device. References: CompTIA A+ Certification Exam Objectives 220-1001 - Mobile device network and device synchronization - 4.4

#### NEW QUESTION 39

- (Topic 1)

A user in a medical office contacts a technician regarding a printer that is used to print A4-sized labels. After the labels are printed, they mistakenly contain white space in the middle of the page. Which of the following would MOST likely be the cause?



- A. Contaminated fuser
- B. Worn rollers
- C. A misfeed
- D. Page orientation

**Answer:** D

**Explanation:**

The most likely cause of the issue is that the page orientation is incorrect. The printer may be set to print labels in a different orientation than the orientation of the label sheet1.

**NEW QUESTION 42**

- (Topic 1)

Which of the following would MOST likely be used to obtain electronic images of a large number of printed documents?

- A. NFC device
- B. ADF/flatbed scanner
- C. Camera/webcam
- D. QR scanner

**Answer:** B

**Explanation:**

ADF/flatbed scanner would most likely be used to obtain electronic images of a large number of printed documents. References: CompTIA A+ Certification Exam Guide, Exam 220-1001, Page 351

**NEW QUESTION 46**

SIMULATION - (Topic 1)

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:

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

**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:  (Also called the SSID)

Wireless Channel:

Disable SSID Broadcast: ☐

802.11g Only Mode: ☐

**Wireless Security Mode**

Security Mode:

**Laura's Wireless Configuration**

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

Turn MAC Filtering ON: ☐

☐

☐

☐


☐

- 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



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



The image shows a web-based configuration interface for a wireless network. The title bar is orange and says "Wireless Configuration". Below it are three tabs: "Wireless Setup", "Network Filter", and "Administrator Tools". The "Administrator Tools" tab is selected. Under this tab, there is a yellow header that says "ADMIN PASSWORD". Below the header, a message reads: "Please enter the same password into both boxes for confirmation." There are two text input fields. The first is labeled "Password:" and contains the text "Secure\$1". The second is labeled "Verify Password:" and also contains the text "Secure\$1". At the bottom right of the form is a yellow button labeled "Save Settings".

#### NEW QUESTION 51

- (Topic 1)

Recently, an organization received a number of spam emails that passed through the spam gateway. The emails contained generally the same information, but the sending domains were different. Which of the following solutions would BEST help mitigate the issue?

- A. Updating the keyword filtering
- B. Editing the sender policy framework
- C. Contacting the gateway vendor
- D. Verifying DMARC is enabled

**Answer: D**

#### Explanation:

DMARC (Domain-based Message Authentication, Reporting and Conformance) is an email authentication protocol. It is designed to give email domain owners the ability to protect their domain from unauthorized use, commonly known as email spoofing.

#### NEW QUESTION 56

- (Topic 1)

An IT manager discovered that hundreds of pages of printed materials are being recycled each day because the materials are left on the printer tray instead of being picked up by users. Which of the following would BEST prevent this waste?

- A. Send friendly reminders to not print unnecessarily.
- B. Enable duplex printing to reduce paper utilization.
- C. Bill each department for the excess material cost.
- D. Require a code or badge before releasing a print job.

**Answer: D**

#### Explanation:

By requiring a code or badge before releasing a print job, it ensures that only authorized personnel can collect the printouts. This method is effective in preventing waste and in keeping sensitive documents confidential. Sending reminders, enabling duplex printing, and billing departments are useful strategies for reducing paper utilization but may not necessarily prevent waste caused by uncollected printouts.

Requiring a code or badge before releasing a print job is the best solution to prevent the waste of printed materials, as it ensures that only the user who initiated

the print job is able to pick up the printed materials. This can be achieved by implementing print release software or requiring users to enter a PIN code at the printer. References: CompTIA A+ Certification Exam Objectives 1001, 2.10

#### NEW QUESTION 60

- (Topic 1)

A technician powers on a PC and its monitor and sees the following error message: No input signal detected  
The display lights on the computer are on. Which of the following is a possible solution?

- A. Changing the BIOS settings
- B. Changing the connector setting on the monitor
- C. Checking the power plug on the monitor
- D. Checking the power plug on the PC

**Answer:** B

#### Explanation:

Changing the connector setting on the monitor is a possible solution for a PC and its monitor that display the error message "No input signal detected". This error can be caused by an incorrect input selected on the monitor, so changing the connector setting to the correct input should resolve the issue. References: CompTIA A+ Certification Exam Objectives 1001, 1.10

Top of Form

Regenerate response Bottom of Form

#### NEW QUESTION 63

- (Topic 1)

A company just bought a printer capable of automatically printing on both sides of the paper After installation, however, the technician can only print on both sides of the paper manually. Which of the following should the technician do to fix the issue?

- A. Install the most recent firmware upgrade available for the printer.
- B. Contact the vendor for a hardware replacement.
- C. Reinstall the printer software and drivers, and then restart the printer.
- D. Read the installation manual and configure duplex settings.

**Answer:** D

#### Explanation:

The issue described in the question is most likely due to an incorrect configuration of the printer's duplex settings. To enable automatic duplex printing, the technician needs to read the printer's installation manual to understand how to configure the printer's duplex settings correctly. Once the settings are configured, the printer should be able to print on both sides of the paper automatically.

To fix the issue of a newly installed printer capable of automatically printing on both sides of the paper but only printing on both sides manually, the technician should read the installation manual and configure duplex settings. Duplex printing settings can be configured in the printer driver software, which can be accessed through the printer settings in the Control Panel. Installing the most recent firmware upgrade available for the printer, contacting the vendor for a hardware replacement, or reinstalling the printer software and drivers and restarting the printer will not resolve the issue.

#### NEW QUESTION 68

- (Topic 1)

Which of the following should the data center hardware technician implement to ensure maximum uptime for customers' virtual machines?

- A. Line conditioner
- B. AC voltage regulator
- C. Uninterruptible power supply
- D. Cloud storage backup

**Answer:** C

#### Explanation:

An uninterruptible power supply (UPS) can help ensure maximum uptime for customers' virtual machines by providing a backup power source in case of a power outage or other power-related issues. A line conditioner and AC voltage regulator are designed to stabilize the power supply, but do not provide backup power. Cloud storage backup is a way to backup data, but does not directly impact uptime. References: CompTIA A+ Certification Exam: Core 1 - Page 159

#### NEW QUESTION 69

- (Topic 1)

A laptop has been returned for a screen repair. The owner insists the screen is broken, but occasionally a faded image is able to be seen in very bright settings on the desktop. Which of the following steps should the repair technician take FIRST?

- A. Replace the graphics card.
- B. Replace the screen, as the customer insists.
- C. Recommend the usage of an external display instead.
- D. Ensure the backlight is functioning as expected.

**Answer:** D

#### Explanation:

If a laptop has been returned for a screen repair and the owner insists the screen is broken, but occasionally a faded image is able to be seen in very bright settings on the desktop, the first step the repair technician should take is to ensure the backlight is functioning as expected. If the backlight is faulty, the screen may appear to be broken, but it may only be dim or too dark to be visible

#### NEW QUESTION 70



- (Topic 1)

A user's mobile phone gets really hot to the touch and does not retain a charge. The user also reports that the phone is very slow, especially while charging. Which of the following is MOST likely causing these symptoms?

- A. Broken charging port
- B. Digitizer failure
- C. CPU overheating
- D. Defective battery

**Answer:** D

**Explanation:**

A defective battery is the most likely cause of a mobile phone that gets really hot to the touch, does not retain a charge, and is slow while charging. A defective battery can cause the phone to overheat and may also cause performance issues. References: CompTIA A+ Certification Exam Objectives 1001, 2.14

**NEW QUESTION 71**

- (Topic 1)

A remote user reports connectivity issues with the local internet provider. Even after a technician reboots the modem supplied by the ISP, the issue persists. Which of the following would BEST establish the connection in minimal time?

- A. Radio frequency ISP
- B. Neighbor's Wi-Fi
- C. Mobile hotspot
- D. Fiber optic

**Answer:** C

**Explanation:**

Using a mobile hotspot is the best way to establish an internet connection in minimal time for a remote user who is experiencing connectivity issues with the local internet provider. A mobile hotspot can be set up quickly and provides a reliable connection using cellular data. References: CompTIA A+ Certification Exam Objectives 1001, 3.4

**NEW QUESTION 74**

- (Topic 1)

In which of the following places is a laptop's wireless antenna MOST likely located?

- A. Near the network interface card
- B. Underneath the battery
- C. Integrated into the motherboard
- D. In the bezel of the lid

**Answer:** D

**Explanation:**

According to Dell Community, the Wi-Fi antenna is located in the top of the LCD display housing. It consists of two elements, fed by two cables, a white main designated on the Wi-Fi card by a white triangle, and a black auxiliary designated on the Wi-Fi card by a black triangle1.

**NEW QUESTION 78**

- (Topic 1)

A customer reports that a computer is never able to reach more than a 100Mbps transfer data rate, even when using a Gigabit LAN card. While troubleshooting, the technician notices the network cable needs to be replaced. Which of the following cable categories is limiting the transfer speed?

- A. Cat 5
- B. Cat 5e
- C. Cat 6
- D. Cat 6a

**Answer:** A

**Explanation:**

Cat 5 cable is limited to a maximum data transfer rate of 100Mbps, while Cat 5e, Cat 6, and Cat 6a cables support Gigabit Ethernet (1000Mbps) and higher speeds. Even though the LAN card is capable of Gigabit speeds, it cannot achieve that speed when using a Cat 5 cable. Upgrading to a Cat 5e or higher cable would allow the computer to achieve Gigabit speeds. References: CompTIA A+ Certification Exam: Core 1 - Page 196

**NEW QUESTION 80**

- (Topic 1)

A technician receives several error alerts on a server after an unexpected reboot. A message states that one or more disks are in a degraded state. When the technician advances to the next error message, it indicates the OS is missing. Which of the following are the MOST likely causes of these errors? (Choose two.)

- A. Missing drives in the OS
- B. RAID failure
- C. Bootable device not found
- D. Data loss
- E. Controller failure
- F. CMOS corruption
- G. TPM malfunction

**Answer:** BC

**Explanation:**

The message stating that one or more disks are in a degraded state is a clear indication of a RAID failure. RAID stands for Redundant Array of Independent Disks, and it is a technology used to provide fault tolerance and improve performance by combining multiple hard drives into a single logical unit. The message indicating that the OS is missing is most likely caused by a bootable device not found. This means that the server is unable to boot from the designated boot device, which could be the hard drive, a CD/DVD drive, or a USB flash drive. This could be caused by a faulty boot device, a loose cable, or a misconfiguration in the BIOS or UEFI settings.

**NEW QUESTION 83**

- (Topic 1)

A customer is using a satellite internet connection that is experiencing slowness. A technician notices high latency while pinging, but the download test is performing perfectly with very good download speeds. Which of the following represents the NEXT action the technician should perform?

- A. Restart the modem and run an online internet connection and speed diagnostic tool.
- B. Guide the customer on how to upgrade the internet plan with the provider in order to improve latency.
- C. Explain to the customer this is not an issue; this situation is normal for this type of internet connection.
- D. Replace the modem because it is not working correctly based on the test result.

**Answer:** A

**Explanation:**

The technician should restart the modem and run an online internet connection and speed diagnostic tool1. High latency is a common issue with satellite internet connections, and it can cause slow internet speeds2. Restarting the modem can help to resolve the issue1. The technician should also run an online internet connection and speed diagnostic tool to check the connection and speed1. Guiding the customer on how to upgrade the internet plan with the provider in order to improve latency is not likely to be the correct option2.

High latency while pinging can indicate a problem with the modem or the connection between the modem and the satellite. Restarting the modem can often resolve connectivity issues. Running an online internet connection and speed diagnostic tool can help identify any other issues with the connection. Upgrading the internet plan may not resolve latency issues and may not be necessary if the download test is performing perfectly with very good download speeds. High latency is not normal for satellite internet connections, so replacing the modem based on this one test result is premature. References: CompTIA A+ Certification Exam: Core 1 - Page 102

**NEW QUESTION 86**

- (Topic 1)

While implementing a non-carrier-grade wireless backhaul, a technician notices the current channel selection is extremely polluted with various RF signals. Upon performing a spectral analysis, the technician discovers a channel containing almost no RF pollution. Unfortunately, the technician is unable to select that channel. Which of the following is the MOST likely reason for this issue?

- A. The channel is reserved for licensed band use.
- B. The channel selection is defective; contact the manufacturer.
- C. The channel must be unlocked by the vendor.
- D. The device requires a firmware update to unlock the channel.

**Answer:** A

**Explanation:**

The most likely reason that the technician is unable to select the channel with almost no RF pollution is that it is reserved for licensed band use. Some channels are reserved for specific purposes and require a license to use. These licensed bands are typically used for critical infrastructure, public safety, or military operations, and unlicensed devices are not allowed to use them. References: CompTIA A+ Certification Exam Objectives - 220-1001: 3.3 Compare and contrast common networking hardware devices.

**NEW QUESTION 88**

- (Topic 1)

A technician is upgrading a legacy wireless router for a home user. After installing the new router and configuring the SSID to be the same, none of the devices will connect to the network. Which of the following should the technician check NEXT?

- A. DHCP pool configuration
- B. MAC filtering list
- C. Wireless protocol settings
- D. DNS servers

**Answer:** B

**Explanation:**

The technician should check the MAC filtering list next as the new router may have a different MAC address than the old router. References: CompTIA A+ Certification Exam Guide, Exam 220-1001, Page 332

**NEW QUESTION 93**

- (Topic 1)

Client-side virtualization guest machines have security requirements similar to physical machines, but they also need to ensure separation from other guest machines. Which of the following BEST describes this client-side guest security requirement?

- A. Isolation
- B. Authentication
- C. Hardening
- D. Authorization

**Answer:** A

**Explanation:**

Client-side virtualization guest machines require isolation from other guest machines to maintain their security. Isolation ensures that each virtual machine is

separated from others and runs its own operating system and applications, making it less vulnerable to attacks from other guest machines. References: CompTIA A+ Certification Exam Objectives 220-1002 - Virtualization and cloud computing - 4.1

**NEW QUESTION 97**

- (Topic 1)

A small office has a wireless network with several access points for roaming laptop use. Users occasionally report that the wireless connection drops or becomes very slow. Users have confirmed that this issue only happens when connected to the office wireless network. Which of the following would MOST likely be the cause?

- A. Hidden SSID
- B. Device interference
- C. Ethernet port flapping
- D. High ISP latency

**Answer: B**

**Explanation:**

Device interference is the most likely cause of the wireless connection dropping or becoming slow. Interference can come from other wireless devices, microwave ovens, or physical barriers like walls and metal objects. Hidden SSID, Ethernet port flapping, and high ISP latency are not likely to cause this issue.

Wireless interference from other devices can cause a drop in wireless connection speed and stability. In a small office environment, there may be several wireless devices competing for the same bandwidth, causing the issues described. References: CompTIA A+ Certification Exam Core 1 Exam Objectives - 3.7 Given a scenario, troubleshoot wired and wireless networks with appropriate tools

**NEW QUESTION 99**

- (Topic 1)

Which of the following standards supports MIMO technology?

- A. 802.11a
- B. 802.11b
- C. 802.11g
- D. 802.11n

**Answer: D**

**Explanation:**

The 802.11n wireless networking standard supports Multiple Input Multiple Output (MIMO) technology. MIMO technology uses multiple antennas on both the transmitting and receiving devices to improve wireless performance by increasing the amount of data that can be transmitted simultaneously. 802.11a, 802.11b, and 802.11g do not support MIMO technology. References: CompTIA A+ Certification Exam: Core 1 - Objective 3.3

**NEW QUESTION 103**

- (Topic 1)

A remote user called the help desk to report a notification indicating there is limited or no connectivity. The user can access local file folders and other local machines but none of the organization's servers or network items. Web pages do not appear to function either. Which of the following is the MOST likely cause of the issue?

- A. The user's internet connection is down.
- B. The user's domain account is locked out.
- C. The user's switch has stopped working.
- D. The user's IP address needs to be renewed.

**Answer: A**

**Explanation:**

Based on the information provided in the scenario, the most likely cause of the issue is that the user's internet connection is down (option A). This would explain why the user is unable to access any of the organization's servers or network items and why web pages are not functioning. However, since the user can still access local file folders and other local machines, it suggests that their local network is still functioning.

The user can access local file folders and other local machines but none of the organization's servers or network items, indicating that the issue is with the user's internet connection, not with the user's domain account, switch, or IP address.

When a user receives a notification indicating that there is limited or no connectivity, it means that their device is unable to establish a connection to the network. In this scenario, the user can access local file folders and other local machines but is unable to access any of the organization's servers or network items and web pages are not functioning. This suggests that the issue is with the user's internet connection.

An internet connection allows a device to communicate with other devices and servers outside of its local network. If the internet connection is down or not functioning properly, the device will be unable to access any resources outside of its local network. This would explain why the user in this scenario can still access local resources but is unable to access any of the organization's servers or network items.

**NEW QUESTION 106**

- (Topic 1)

A user reports that printed receipts have black smudges over the entire image. The text is still present but is very dark and sometimes illegible. Which of the following are the MOST likely cause and solution for the printer issue?

- A. The ribbon is jammed and is rubbing on the pape
- B. Clear the bad ribbon and feed it through properly.
- C. The printhead is too ho
- D. Adjust the temperature down and retry printing.
- E. The printer is loaded with the wrong type of pape
- F. Replace the receipt paper with carbon paper.
- G. The blue ink cartridge was loaded with black in
- H. Put in the correct ink and clean the printhead.

**Answer:** A

**Explanation:**

The black smudges over the entire image on a printed receipt are most likely caused by a jammed ribbon that is rubbing on the paper. The solution is to clear the bad ribbon and feed it through the printer properly. Ribbon jams can be caused by various issues, such as incorrect installation or a damaged ribbon. References: CompTIA A+ Certification Exam Objectives - 220-1001: 4.5 Given a scenario, troubleshoot common printer problems.

**NEW QUESTION 107**

- (Topic 1)

A technician needs to add storage to a workstation. The workstation does not have room to add any internal storage, so the technician plans to add an external storage device. Which of the following connection types should the technician MOST likely use?

- A. SCSI
- B. eSATA
- C. PCIe
- D. NVMe

**Answer:** B

**Explanation:**

eSATA is the best choice for adding external storage as it offers a fast transfer rate and is specifically designed for external storage devices. SCSI is an older interface that is rarely used today, PCIe is typically used to add expansion cards to a computer, and NVMe is a newer interface for high-speed solid-state storage, but it is typically used for internal storage devices.

**NEW QUESTION 109**

- (Topic 1)

A user working in the field reported the GPS stopped working on a phone. The user's older, in-car GPS continued to function. Later, the user reported that the phone's GPS started working again. Which of the following MOST likely caused the phone's GPS to fail?

- A. The cell phone was in conservation mode
- B. The cell phone had lost service to the earner
- C. The eel phone received a firmware update
- D. The cell phone had overheated

**Answer:** B

**Explanation:**

The phone's GPS may fail due to a loss of service from the carrier, which provides the phone with GPS location data. The fact that the in-car GPS continued to function suggests that the issue was related to the phone, not the GPS satellites. References: CompTIA A+ Certification Study Guide, Tenth Edition, pg. 372

**NEW QUESTION 110**

- (Topic 1)

A user takes a tablet to a technician because the cursor on it keeps drifting. The technician notices the screen does not appear to be damaged. Which of the following is the MOST likely cause of the cursor issue?

- A. The screen is physically damaged.
- B. The screen rotation is incorrect.
- C. The touch-pen battery is depleted.
- D. The screen needs to be recalibrated.

**Answer:** D

**Explanation:**

The most likely cause of the cursor issue is that the screen needs to be recalibrated. This can happen when the tablet is used for a long time or when the tablet is dropped or bumped. Recalibrating the screen will help the tablet recognize the touch input more accurately<sup>12</sup>.

**NEW QUESTION 112**

- (Topic 1)

Which of the following components enables the input on a mobile device's touch screen?

- A. OLED
- B. Digitizer
- C. Inverter
- D. CMOS sensor

**Answer:** B

**Explanation:**

The digitizer is the component that enables input on a mobile device's touch screen. It is a transparent layer that sits over the screen and detects the location of touch inputs. OLED (Organic Light Emitting Diode) is a type of display technology. Inverter is a component used in older LCD displays to provide power to the backlight. CMOS (Complementary Metal-Oxide-Semiconductor) sensor is a type of image sensor used in digital cameras and smartphones to capture images. References: CompTIA A+ Certification Exam: Core 1 - Page 177

**NEW QUESTION 114**

- (Topic 2)

A technician is diagnosing a workstation that shuts down unexpectedly during a butn-in test. Which of the following is the MOST likely cause for this symptom?



- A. Faulty CMOS battery
- B. OS update issue
- C. Overheating
- D. Faulty RAM

**Answer:** C

**Explanation:**

If a workstation shuts down unexpectedly during a burn-in test, overheating is the most likely cause. This is because a burn-in test is designed to stress the components of the workstation, which can generate a lot of heat. Therefore, overheating is the correct answer. References: CompTIA A+ Certification Exam Guide, Ninth Edition, page 120

**NEW QUESTION 119**

- (Topic 2)

A home user has purchased a subscription for a service that blocks malicious sites by preventing them from resolving correctly. Which of the following settings MOST likely needs to be changed on the user's router to enable this functionality?

- A. DNS server
- B. Port forwarding
- C. Perimeter network
- D. Universal PnP
- E. DHCP server

**Answer:** A

**Explanation:**

The Domain Name System (DNS) is responsible for translating domain names into IP addresses. By blocking malicious sites from resolving correctly, the DNS server is able to prevent the user from accessing those sites. Therefore, the DNS server setting on the user's router needs to be changed to enable this functionality.

**NEW QUESTION 123**

- (Topic 2)

A user entered a help desk ticket stating the latest calendar updates have not appeared on the user's corporate mobile device for several days, even though updates do appear on the user's laptop. Which of the following actions will MOST likely enable calendar alerts?

- A. Checking that the ringer volume on the device is high enough to be audible
- B. Ensuring the corporate password is saved correctly in the calendar application
- C. Installing a third-party calendar application and synchronizing it with the corporate calendar
- D. Remotely wiping the mobile device and reinstalling all applications

**Answer:** B

**NEW QUESTION 124**

- (Topic 2)

Which of the following wireless technologies has the MOST range and wireless throughput?

- A. 802.11ac
- B. 802.11ax
- C. 802.11b/g/n
- D. 802.11g

**Answer:** B

**Explanation:**

802.11ax, also known as Wi-Fi 6, has the longest range and the highest wireless throughput of all the wireless technologies listed. References: CompTIA A+ Certification Exam Guide, 220-1101, Chapter 3

**NEW QUESTION 126**

- (Topic 2)

A user that works in sales is reporting that the output on each page printed from a laser has duplicate images. Which of the following should be performed FIRST to eliminate the ghost images?

- A. Change the paper weight setting.
- B. Replace the printer's fuser.
- C. Upgrade the printer firmware.
- D. Clean the toner drums and rollers

**Answer:** D

**Explanation:**

If a laser printer is producing output with duplicate images (also known as ghost images), it could be due to an issue with the toner drums and rollers. The first step to eliminate the ghost images would be to clean the toner drums and rollers to remove any excess toner that may be causing the issue. Ghost images are a common issue in laser printers where an image or text from a previous page appears faintly on subsequent pages. The cause of this issue is usually due to toner residue on the drum or rollers, which can be removed by cleaning the toner drums and rollers. References: Study Guide Section 4.6 - Printer technologies

**NEW QUESTION 127**

- (Topic 2)

A technician needs to install a printer on the network. Which of the following must the technician configure? (Select THREE).

- A. PCL
- B. Dots per inch
- C. Gateway
- D. Subnet mask
- E. MAC address
- F. MB
- G. IP address
- H. Drivers

**Answer:** CDG

**Explanation:**

When installing a printer on a network, the technician needs to configure the network settings, which include the IP address, subnet mask, and gateway. These settings are used to ensure that the printer can communicate with other devices on the network. When installing a printer on a network, the technician must configure the network settings of the printer to ensure that it can communicate with other devices on the network. This includes configuring the gateway, subnet mask and IP address of the printer.

The gateway is the device that connects the local network to other networks or the Internet. The subnet mask is used to determine which part of an IP address represents the network and which part represents individual hosts on that network. The IP address is a unique identifier for each device on a network.

**NEW QUESTION 132**

- (Topic 2)

Which of the following is the SAFEST way to replace RAM on a server that has a redundant power supply?

- A. Unplug one power cable.
- B. Verify the RAM temperature.
- C. Utilize a grounding strap.
- D. Replace the RAM while the server is running.

**Answer:** C

**Explanation:**

Utilizing a grounding strap is the safest way to replace RAM on a server that has a redundant power supply. This ensures that no static electricity is transferred to any of the server components, which could cause permanent damage. The other options are not the correct methods for replacing RAM. Unplugging one power cable is not recommended, as it could cause the server to go offline and disrupt any services that are running. Verifying the RAM temperature is not necessary and does not provide any additional safety measures, and replacing the RAM while the server is running is not recommended, as it could cause system instability.

**NEW QUESTION 134**

- (Topic 2)

Which of the following commonly uses NFC?

- A. Contactless payments
- B. IoT devices
- C. Inventory tracking
- D. Tethering

**Answer:** A

**Explanation:**

NFC (Near Field Communication) is a wireless communication technology that is commonly used for contactless payments, mobile payments, and other mobile transactions. It allows two devices to communicate with each other when they are placed in close proximity.

Contactless payments commonly use NFC (Near Field Communication). NFC is a wireless communication technology that allows two devices to communicate with each other when they are in close proximity. Contactless payments use NFC to enable customers to make payments by simply tapping their contactless card or mobile device on a payment terminal.

**NEW QUESTION 138**

- (Topic 2)

Which of the following are default ports for HTTP and HTTPS traffic? (Select TWO).

- A. 23
- B. 25
- C. 80
- D. 143
- E. 389
- F. 443

**Answer:** CF

**NEW QUESTION 142**

- (Topic 2)

The Chief Executive Officer wants to ensure company data is stored in a manner that provides the company with complete control over how the data is managed. Which of the following is the BEST cloud deployment model for this request?

- A. Community
- B. Hybrid
- C. Public
- D. Private

**Answer:** D

**Explanation:**

A private cloud deployment model provides the company with complete control over how the data is managed. This is because a private cloud is managed solely by the organization and resides on-premises or in a data center. Therefore, a private cloud deployment model is the best option for this scenario.

**NEW QUESTION 146**

- (Topic 2)

A technician is tasked with upgrading a laptop's RAM. Which of the following steps should the technician take FIRST?

- A. Confirm that both the current and new memory are from the same brand.
- B. Run a diagnostic test on the current memory.
- C. Verify the memory requirements of the motherboard.
- D. Connect an electrostatic discharge strap.

**Answer:** C

**Explanation:**

If a technician is tasked with upgrading a laptop's RAM, the technician should verify the memory requirements of the motherboard first. The motherboard of the laptop will have specific requirements for the type and amount of RAM that can be installed. By verifying the memory requirements of the motherboard, the technician can ensure that the new RAM is compatible with the laptop.

Before upgrading a laptop's RAM, a technician should verify the memory requirements of the motherboard to ensure the new RAM is compatible. The type, speed, and maximum capacity of the RAM should be checked to ensure it meets the requirements of the motherboard. References: CompTIA A+ Certification Exam Guide, pg. 347-348

**NEW QUESTION 150**

- (Topic 2)

Which of the following options provides correct information about 2.4GHz and 5GHz wireless frequencies? (Select TWO)

- A. 2.4GHz has less interference
- B. 5GHz transmits in lower speed.
- C. 2.4GHz penetrates solid objects more effectively
- D. 5GHz provides faster data connections.
- E. 2.4GHz has a higher data rate
- F. 5GHz has 23 channels.
- G. 2.4GHz has 11 channels
- H. 5GHz has no data interference.
- I. 2.4GHz has a higher coverage area
- J. 5GHz has higher bandwidth.
- K. 2.4GHz has a higher bandwidth
- L. 5GHz has lower transmit power.

**Answer:** BE

**Explanation:**

The correct answers are B. 2.4GHz penetrates solid objects more effectively. 5GHz provides faster data connections and E. 2.4GHz has a higher coverage area. 5GHz has higher bandwidth. The 2.4GHz frequency has a lower data rate compared to 5GHz, but it can penetrate solid objects more effectively and has a higher coverage area. The 5GHz frequency, on the other hand, provides faster data connections and has higher bandwidth, but it has fewer channels and lower transmit power.

**NEW QUESTION 154**

- (Topic 2)

A technician is troubleshooting a smartphone that has a large dark area on the screen. The screen has no damage to indicate that it is cracked. Which of the following BEST describes why a blot is on the screen?

- A. Digitizer damage
- B. Improper charging
- C. Ambient light sensor damage
- D. Liquid damage

**Answer:** A

**Explanation:**

A blot on the screen of a smartphone is most likely caused by damage to the digitizer, which is the part of the device responsible for interpreting touch input. Improper charging is unlikely to cause a blot on the screen, as is damage to the ambient light sensor. Liquid damage is a possibility, but it is more likely to cause discoloration or other physical damage to the screen.

**NEW QUESTION 156**

- (Topic 2)

A technician is inspecting a projector that is displaying fuzzy images. Which of the following actions would provide the BEST solution?

- A. Adjusting the lens
- B. Changing the filter
- C. Replacing the video cable
- D. Reseating the lamp

**Answer:** A

**Explanation:**

Adjusting the lens is the best solution to improve image quality in a projector. The lens can become misaligned over time or during transportation, causing the image to appear fuzzy.

#### NEW QUESTION 157

- (Topic 2)

Which of the following is the PRIMARY security concern with virtual machine escape?

- A. Cross-site scripting
- B. Compromising the hypervisor
- C. Overutilization of resources
- D. Rogue virtual machines installed on the hypervisor

**Answer: B**

#### Explanation:

The primary security concern with virtual machine escape is compromising the hypervisor, which can allow attackers to gain access to other virtual machines or the host system. Virtual machine escape refers to an attack that allows a guest virtual machine to break out of its isolated environment and access other parts of the system.

#### NEW QUESTION 161

- (Topic 2)

A technician is troubleshooting intermittent fuzzy video on a computer using a VGA to DisplayPort adapter to connect to a monitor. The monitor with a VGA connector was previously working fine for another user. The technician replaces the adapter; however, the issue persists. Which of the following should the technician do NEXT?

- A. Use another brand of VGA to DisplayPort adapter.
- B. Research the issue further and formulate a new hypothesis to test.
- C. Ask the user additional clarifying questions regarding the issue.
- D. Document the action taken and the outcome.

**Answer: C**

#### Explanation:

<https://spryzensecurity.medium.com/what-is-troubleshooting-methodology-40cec6b6494>

The technician should ask the user additional clarifying questions regarding the issue. This will help to identify any other potential causes of the issue, such as software configuration or compatibility issues, before attempting any further troubleshooting steps.

#### NEW QUESTION 165

- (Topic 2)

A technician is working on a critical warehouse machine that will not turn on. The technician has determined the power supply for the machine failed. The warehouse manager is looking for a solution that will prevent downtime in the future. Which of the following devices should the technician install to meet this requirement?

- A. Grounded power supply
- B. Modular power supply
- C. 220V power supply
- D. Redundant power supply

**Answer: D**

#### Explanation:

A redundant power supply is a device that provides two or more power supplies connected in parallel so that when one fails, the other one will take over to ensure continuous power. This is ideal for critical warehouse machines that require a reliable power source and are at risk of downtime in the event of a power failure. Installing a redundant power supply will help to reduce the chances of an unexpected power outage and keep the machine running.

#### NEW QUESTION 169

- (Topic 2)

A technician is working on a help desk ticket for a user who wants the filament replaced in a 3-D printer. Which of the following should the technician do to remove the old filament and load the new one?

- A. Preheat the nozzle to melting temperature.
- B. Cut a sharp angle on the end of the strand.
- C. Push the filament along until resistance is felt.
- D. Withdraw the filament and remove the spool.

**Answer: D**

#### Explanation:

A technician is working on a help desk ticket for a user who wants the filament replaced in a 3-D printer. To remove the old filament and load the new one, the technician should preheat the nozzle to melting temperature. After the nozzle is heated, the technician should withdraw the filament and remove the spool. Then, cut a sharp angle on the end of the new strand, and push it along until resistance is felt.

#### NEW QUESTION 173

- (Topic 2)

A technician installed a new router at a small office. After the installation, the technician notices that all devices have a 169.254.x.x IP address. Printers and fileshares are still working, but PCs cannot access the Internet. Which of the following should the technician configure on the router to enable devices to connect to the internet?



- A. APIPA
- B. DNS
- C. DHCP
- D. SMB

**Answer:** C

**Explanation:**

To enable devices to connect to the internet after installing a new router at a small office, the technician should configure DHCP (Dynamic Host Configuration Protocol) on the router. DHCP is a network protocol that automatically assigns IP addresses and other network configuration parameters to devices on a network. By configuring DHCP on the router, the technician can ensure that all devices on the network are assigned a valid IP address that allows them to connect to the internet.

If all devices have a 169.254.x.x IP address, this suggests that the router is not assigning IP addresses to the devices using DHCP (Dynamic Host Configuration Protocol). Configuring the DHCP settings on the router can enable the devices to receive IP addresses automatically and access the internet. References: CompTIA A+ Certification All-in-One Exam Guide, Tenth Edition, Chapter 14

**NEW QUESTION 175**

- (Topic 2)

Which of the following is the MAXIMUM power PoE+ provides?

- A. 15.4W
- B. 30W
- C. 60W
- D. 95W

**Answer:** B

**Explanation:**

The earliest PoE switches from a few years ago generated 15 Watts per port (IEEE 802.3af). Today, most use the PoE+ standard (IEEE 802.3at), which generates up to 30 Watts per port. That's plenty for most devices that people want to connect

**NEW QUESTION 178**

- (Topic 2)

Vertical streaks are appearing on the output of a laser printer. Which of the following items is the MOST likely cause?

- A. Roller
- B. Drum
- C. Transfer belt
- D. Ribbon

**Answer:** B

**Explanation:**

Vertical or horizontal lines—Marks that appear in the same place (referred to as repetitive defects) are often due to dirty feed rollers (note that there are rollers in the toner cartridge and fuser unit too) or a damaged or dirty photosensitive drum.

Vertical streaks on a laser printer output are usually caused by a damaged or worn-out drum, which is responsible for transferring toner to the paper. If the drum is damaged, toner may accumulate on certain parts of the drum, leading to streaks on the printed output. References: CompTIA A+ Certification All-in-One Exam Guide, Tenth Edition, Chapter 15

**NEW QUESTION 181**

- (Topic 2)

A technician installs a new printer for a workstation and tries to print a test page, but the page does not print. The technician looks at the print queue and notices that the printer is called 'Generic Printer.' Which of the following BEST describes what the technician should do to fix this issue?

- A. Connect the printer with a USB cable rather than over the network.
- B. Install the appropriate printer drivers for the OS.
- C. Install the correct toner in the printer.
- D. Set the printer trays to allow duplex printing

**Answer:** B

**Explanation:**

The technician should install the appropriate printer drivers for the OS to enable the computer to communicate with the printer. The generic printer name suggests that the drivers are missing or not installed correctly.

**NEW QUESTION 184**

- (Topic 2)

A technician set up a new access point and has noticed significant latency on the selected channel. Which of the following tools can assist with locating the BEST channel to use?

- A. Wi-Fi analyzer
- B. Netstat
- C. Net use
- D. Traceroute
- E. Network tap

**Answer:** A

**Explanation:**

A Wi-Fi analyzer is a tool that can be used to scan the local area for available wireless networks and can provide information such as signal strength, interference, and available channels. It can also be used to locate the best channel to use for a given access point, which can help to reduce latency and improve performance.

**NEW QUESTION 186**

- (Topic 2)

A department sends in a ticket to report a printer is not working. The responding technician sees paper stuck to the fuser, which is much hotter than normal. The (user was just installed a few weeks ago. as indicated by the service history. Which of the following should the technician do NEXT?

- A. Disconnect the printer power for troubleshooting.
- B. Install a printer roller kit.
- C. Replace the overheating fuser.
- D. Replace the paper with thicker paper stock.

**Answer:** A

**Explanation:**

The first step in troubleshooting a printer issue is to disconnect the printer power to avoid electric shock or further damage to the printer. The technician can then inspect the fuser and determine if it needs to be replaced or repaired. Installing a printer roller kit or replacing the paper with thicker paper stock will not solve the problem of the overheating fuser. Replacing the fuser without disconnecting the power is dangerous and not recommended. References:

<https://www.comptia.org/certifications/a#examdetails> <https://www.comptia.org/blog/what-is-a-fuser>

**NEW QUESTION 189**

- (Topic 2)

A new employee has been issued a company laptop. The employee requests an accessory with a single power source that has wired network connectivity and supports a keyboard, mouse, speakers, and dual monitors. Which of the following accessories should the systems administrator deploy to BEST meet the new user's needs?

- A. Poe switch
- B. USB-C hub with power delivery
- C. Docking station with DisplayPort
- D. KVM switch with audio

**Answer:** C

**Explanation:**

A docking station is a hardware accessory that allows laptops to connect to multiple peripherals and devices with a single connection. A docking station with DisplayPort would provide the necessary connectivity for the dual monitors, and it can also support the required peripherals such as the keyboard, mouse, and speakers. In addition, it will provide a wired network connectivity for faster and more reliable network access.

**NEW QUESTION 190**

- (Topic 2)

The IT department issued a corporate smartphone to a user, but the user returned the device stating it had connectivity Issues. The user claimed the device functioned on WI-FI but all connectivity to cloud services was lost as soon as the device was taken off site. Which of the following issues was MOST likely affecting the device?

- A. MDM was never properly set up on the device.
- B. S/MIME certificates were corrupted and needed to be reloaded.
- C. Bluetooth on the device was disabled by mistake.
- D. The device never had a proper SIM card installed.

**Answer:** D

**Explanation:**

A SIM card is needed for the device to use cellular network services, so without it, the device will be unable to connect to the cloud services when taken off site. MDM (Mobile Device Management) can be used to manage settings and access on a device, but it is not necessary for the device to be able to use cloud services. S/MIME (Secure/Multipurpose Internet Mail Extensions) certificates are used to encrypt and digitally sign emails, and are not related to device connectivity. Bluetooth can be used to connect devices together, but it is not necessary for the device to be able to use cloud services.

**NEW QUESTION 192**

- (Topic 3)

A customer called the help desk to request information about how to increase the volume on a laptop using only a keyboard. Which of the following keys would MOST likely allow this to be done?

- A. Alt
- B. Fn
- C. Tab
- D. Ctrl

**Answer:** B

**Explanation:**

To increase the volume on a laptop using only a keyboard, a user can press and hold down the Fn key while pressing one of the function keys (usually F1-F12) that has an icon representing volume up.

**NEW QUESTION 196**

- (Topic 3)

A help desk technician plugged in a user's new computer to a network port. After a few minutes, the computer showed an APIPA address. Which of the following is the MOST likely reason this happened?

- A. The WLAN is disabling the NIC card.
- B. The network cable is not attached.
- C. The PC is unable to contact a DHCP server.
- D. The DHCP server is using addresses in the range of 169.254.254.1.

**Answer: C**

**Explanation:**

The most likely reason for a computer showing an APIPA address after being plugged into a network port is that the PC is unable to contact a DHCP server. Automatic Private IP Addressing (APIPA) is a DHCP fail-safe that protects a computer system from failure. It invokes a standby mechanism for local Internet Protocol version 4 (IPv4) networks supported by Microsoft Windows. With APIPA, DHCP clients can obtain IP addresses even when DHCP servers are not functional. The other options are less likely to be the cause of the issue.

**NEW QUESTION 200**

- (Topic 3)

A technician needs to increase the available RAM on a virtual workstation. Which of the following should the technician do?

- A. Increase the ECC memory timings in the BIOS.
- B. Upgrade to the latest DDR5 modules.
- C. Clear the temporary files on the workstation's boot drive.
- D. Use a hypervisor to adjust the resource allocation.

**Answer: D**

**Explanation:**

A hypervisor is a software layer that manages and allocates resources for virtual machines (VMs) on a physical host machine. A technician can use a hypervisor to adjust the resource allocation for a virtual workstation, such as increasing the amount of RAM assigned to it from the available pool of memory on the host machine. This can improve the performance and functionality of the virtual workstation without requiring any hardware changes or modifications. Reference: <https://www.comptia.org/training/books/a-core-1-220-1101-study-guide> (page 59)

**NEW QUESTION 205**

- (Topic 3)

A user is looking for a way to increase the total RAM in a system without upgrading the hardware. Which of the following should the user perform to complete this task?

- A. Run a burn-in application.
- B. Create a VM.
- C. Install hardware-tuning software.
- D. Set up virtual memory.

**Answer: D**

**Explanation:**

Virtual memory is a software-based memory management system that allows a computer to use hard disk storage space as RAM. This can be used to increase the total RAM in a system without upgrading the hardware. To set up virtual memory, the user should go to the System Properties window and select the Advanced tab. In the Performance section, click on the Settings button, which will open the Performance Options window. Then, click on the Advanced tab and click on the Change button in the Virtual memory section. Finally, select the option to Automatically manage paging file size for all drives, and then click OK to save the changes.

**NEW QUESTION 206**

- (Topic 3)

A user reports that a computer will not turn on. The technician verifies the power cord and the outlet the computer is plugged into are both working properly. Which of the following is the hardware component that has MOST likely failed?

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

**Answer: A**

**Explanation:**

The power supply unit (PSU) is the component that converts AC power from the outlet to DC power for the computer. If the PSU fails, the computer will not turn on. The CPU, RAM, and GPU are not directly related to the power supply and would not prevent the computer from turning on.

**NEW QUESTION 208**

- (Topic 3)

A technician who works in a high-security environment needs to set up a laptop with triple monitors for a new security employee. All USB ports are disabled due to security policies. Which of the following should the technician do to BEST meet the requirements?

- A. Install a splitter cable.
- B. Install a discrete graphics card.
- C. Use an HDMI switch.
- D. Implement a docking station.

**Answer:** D

**Explanation:**

This is because a docking station can connect multiple monitors to a laptop without using USB ports, which are disabled in this scenario. A splitter cable would only allow two monitors to be connected, not three. A discrete graphics card would require opening the laptop and installing hardware, which may not be feasible or allowed in a high-security environment. An HDMI switch would only allow one monitor to be active at a time, not all three simultaneously.

**NEW QUESTION 209**

- (Topic 3)

New memory modules were installed in several Windows desktops but some users are still reporting performance issues. Upon investigation, a systems administrator notices the desktop has not recognized the new memory modules. Which of the following should the systems administrator perform to help resolve this issue?

- A. Configure appropriate settings within the BIOS
- B. Replace the RAM
- C. Modify the boot.ini file.
- D. Install the required drivers through the Control Panel

**Answer:** A

**Explanation:**

To resolve the issue of new memory modules not being recognized, the systems administrator should configure appropriate settings within the BIOS. This can include enabling memory mapping or setting memory speed and timings. References: CompTIA A+ Certification Exam Objectives, 220-1001 Section 1.8  
Configure appropriate settings within the BIOS. If new memory modules were installed in several Windows desktops but some users are still reporting performance issues and the desktop has not recognized the new memory modules, the systems administrator should configure appropriate settings within the BIOS to help resolve this issue.

**NEW QUESTION 213**

- (Topic 3)

A user's Windows computer started running slowly after the installation of a CAD program. The computer has intermittent timeouts and often has to be rebooted to restore functionality. The computer seems to work correctly if the application is not running. Which of the following should the technician do NEXT to help troubleshoot the issue? (Select TWO).

- A. Replace the video card.
- B. Research the requirements of the application.
- C. Install a new case fan.
- D. Run chkdsk on the HDD.
- E. Check the Event Viewer logs.
- F. Reinstall the application.

**Answer:** BE

**Explanation:**

The technician should research the requirements of the CAD program to see if the computer meets them or needs any upgrades or updates to run it properly. The technician should also check the Event Viewer logs to see if there are any errors or warnings related to the application or system performance that could indicate the cause of the problem or suggest a solution. Reference: <https://www.comptia.org/training/books/a-core-1-220-1101-study-guide> (pages 43, 47)

**NEW QUESTION 218**

- (Topic 3)

Which of the following connectors can be plugged into a Thunderbolt 3 port on a laptop?

- A. miniUSB
- B. microUSB
- C. USB-A
- D. USB-C

**Answer:** C

**Explanation:**

Thunderbolt 3 is a USB-C port, so any device with a USB-C connector can be plugged into it. MiniUSB, microUSB and USB-A are not compatible with Thunderbolt 3.

**NEW QUESTION 219**

- (Topic 3)

A technician is preparing laptops for deployment to a medical department. The laptops require SSD-level encryption to be enabled, but BitLocker refuses to turn it on. An error message states that a BIOS-level setting has not been turned on. Which of the following should the technician check FIRST when troubleshooting this issue?

- A. Recorder the priority in Windows Boot Manager.
- B. Check to make sure Secure Boot is turned on.
- C. Ensure that the Trusted Platform Module is enabled.
- D. Verify that the latest updates are installed.

**Answer:** C

**Explanation:**

The Trusted Platform Module (TPM) is a hardware component that provides cryptographic functions and secure storage for encryption keys, passwords, and



certificates. BitLocker requires a TPM to be enabled and activated in the BIOS or UEFI settings of the laptop in order to use SSD-level encryption. The technician should check that the TPM is enabled and activated before trying to turn on BitLocker. Reference: <https://partners.comptia.org/docs/default-source/resources/a-core-series-combined-content-guide> (page 34)

#### NEW QUESTION 220

- (Topic 3)

A desktop support technician is building a new desktop that features the fastest internal storage. Which of the following BEST suits this request?

- A. SATASSD
- B. SATA HDD
- C. M2PCIeNVMeSSD
- D. PCIe SATA HDD

**Answer:** C

#### Explanation:

M2PCIeNVMeSSD. M.2 PCIe NVMe SSDs are the fastest internal storage devices available for desktops. They are faster than SATA SSDs and PCIe SATA HDD1s2.

#### NEW QUESTION 222

- (Topic 3)

A technician is installing a USB Wi-Fi card. Which of the following would be the MOST appropriate way for the technician to receive the latest official drivers for the device?

- A. Download the drivers from the vendor's website.
- B. Allow the OS to install the drivers automatically.
- C. Utilize a third-part
- D. non-OEM driver.
- E. Run the autoinstall CD.

**Answer:** A

#### Explanation:

The most appropriate way for the technician to receive the latest official drivers for a USB Wi-Fi card is to download them from the vendor's website. This ensures that the drivers are compatible, updated, and secure. Allowing the OS to install the drivers automatically may not provide the latest or best drivers for the device. Utilizing a third-party, non-OEM driver could cause compatibility or security issues. Running the autoinstall CD could install outdated or unnecessary software along with the drivers

#### NEW QUESTION 225

- (Topic 3)

A technician is troubleshooting a laptop that has a blank LCD panel. The technician shines a flashlight into the LCD and sees a faint image. Which of the following BEST describes the issue?

- A. Defective inverter
- B. Incomplete video driver
- C. Incorrect input source
- D. Burned-out bulb

**Answer:** A

#### Explanation:

an inverter is a device that converts DC power from the laptop's battery or AC adapter to AC power for the backlight of the LCD panel. If the inverter is defective, the backlight will not work and the LCD panel will appear blank or very dim. The user can still see a faint image if they shine a flashlight into the LCD because the LCD itself is still working.

#### NEW QUESTION 230

- (Topic 3)

A service technician replaced the gateway, and a user is now unable to access the SOHO wireless network. Which of the following steps should the technician take to resolve the issue?

- A. Assess the network cables for damage.
- B. Disable Bluetooth connections.
- C. Update the firmware.
- D. Check if the password and SSID are correct

**Answer:** D

#### Explanation:

Checking if the password and SSID are correct is the best step that the technician should take to resolve the issue of a user being unable to access the SOHO wireless network after replacing the gateway. The new gateway may have a different password and SSID than the old one, which would prevent the user from connecting to the wireless network. The technician should verify that the user has entered the correct password and SSID for the new gateway. Assessing the network cables for damage, disabling Bluetooth connections, or updating the firmware are not likely to solve the issue, as they are not related to the wireless network authentication

#### NEW QUESTION 235

- (Topic 3)

The GPS on a user's phone has been unreliable. Which of the following will MOST likely resolve the issue?

- A. Enabling high-accuracy mode
- B. Replacing the battery
- C. Disabling Wi-Fi connections
- D. Utilizing a third-party map application

**Answer:** A

**Explanation:**

Enabling high-accuracy mode is the most likely action to resolve the issue of unreliable GPS on a user's phone. High-accuracy mode uses multiple sources of location data, such as Wi-Fi, cellular networks, and Bluetooth, to improve the accuracy and reliability of GPS. Replacing the battery, disabling Wi-Fi connections, or utilizing a third-party map application are unlikely to fix the GPS issue, as they are not directly related to the GPS function

**NEW QUESTION 239**

- (Topic 3)

An IT manager is evaluating ticket resolution times. While reviewing the data, the manager notices repetitive issues are taking longer than expected to resolve. Which of the following changes should the manager implement to resolve repetitive issues more quickly?

- A. Require the technicians to spend more time testing theories to determine the root causes of issues.
- B. Require the technicians to verify full system functionality when resolving issues.
- C. Require the technicians to gather more information when speaking with users about issues.
- D. Require the technicians to document the findings, action, and outcomes of issues.

**Answer:** D

**Explanation:**

By documenting the findings, action, and outcomes of issues, the technicians can create a knowledge base that can be used to resolve similar issues in the future more quickly and efficiently. The documentation can also help identify patterns or trends that can lead to preventive measures or root cause analysis. Documenting the issues can also improve communication and collaboration among technicians and users, as well as provide evidence of service quality and performance.

Reference: <https://partners.comptia.org/docs/default-source/resources/a-core-1-content-guide> (page 4)

**NEW QUESTION 241**

- (Topic 3)

Which of the following does a DHCP reservation MOST likely apply to?

- A. Smart TV
- B. Mobile device
- C. Workstation
- D. Printer

**Answer:** D

**Explanation:**

A DHCP reservation is a feature that allows a DHCP server to assign a specific IP address to a specific device on a network, based on its MAC address. This ensures that the device always receives the same IP address, even if it is disconnected or rebooted. A DHCP reservation is most likely applied to a printer, as it can make it easier for users to find and connect to the printer on the network, without having to change the printer settings or deal with IP address conflicts.

Reference: <https://www.comptia.org/training/books/a-core-1-220-1101-study-guide> (page 84)

**NEW QUESTION 244**

- (Topic 3)

A new HD webcam's image only updates one or two times per second. The specifications indicate the webcam is capable of updating 30 frames per second. Which of the following is MOST likely causing the issue?

- A. The USB 2.0 port has insufficient bandwidth.
- B. The Thunderbolt connector is not compatible.
- C. The VGA cable does not support a digital signal.
- D. The connection should — instead of STP.

**Answer:** A

**Explanation:**

The USB 2.0 port has insufficient bandwidth to support a high-definition webcam that can update 30 frames per second. USB 2.0 has a maximum theoretical bandwidth of 480 Mbps, which may not be enough for HD video streaming. The user should try using a USB 3.0 port or a Thunderbolt connector, which have higher bandwidths and can support HD webcams. The Thunderbolt connector is compatible with USB devices, so it is not the cause of the issue. The VGA cable and the STP cable are not related to the webcam, as they are used for video output and network connection respectively.

**NEW QUESTION 245**

- (Topic 3)

A desktop support technician receives an escalated ticket regarding a computer that displays the following message upon booting up: The amount of system memory has changed. Which of the following components is failing?

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

**Answer:** C

**Explanation:**

The message “The amount of system memory has changed” indicates that there is a problem with the random access memory (RAM) modules in the computer. The RAM may be loose, faulty, or incompatible with the motherboard or other components. The GPU, HDD, and CPU are not directly related to system memory and would not cause this message to appear.

#### NEW QUESTION 247

- (Topic 3)

Which of the following frequency bands do 802.11b and 802.11g operate in?

- A. 1GHz
- B. 2.4GHz
- C. 5GHz
- D. 6GHz

**Answer: B**

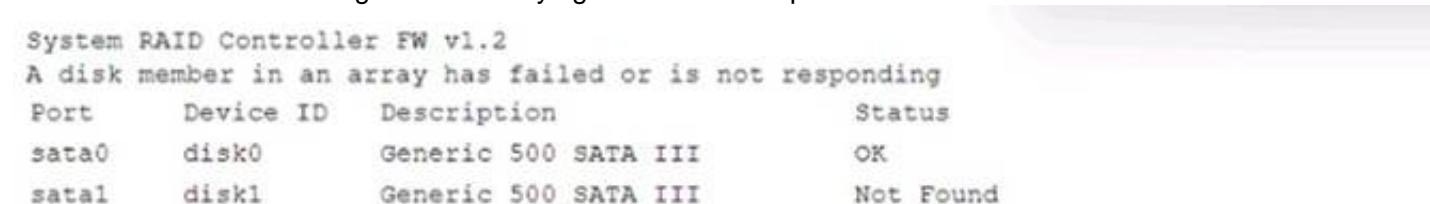
#### Explanation:

The frequency bands that 802.11b and 802.11g operate in are 2.4GHz bands, which allow for longer range but lower speed than higher frequency bands such as 5GHz or 6GHz bands used by newer standards such as 802.11a/n/ac/ax.

#### NEW QUESTION 248

- (Topic 3)

A user receives the following error when trying to reboot a computer:



```
System RAID Controller FW v1.2
A disk member in an array has failed or is not responding
Port      Device ID  Description              Status
sata0     disk0      Generic 500 SATA III     OK
sata1     disk1      Generic 500 SATA III     Not Found
```

Which of the following is the MOST likely cause of this error message?

- A. Corrupted bootloader
- B. Faulty RAID controller
- C. Failed hard drive
- D. Incorrect storage device driver

**Answer: C**

#### Explanation:

The error message "Reboot and Select Proper Boot Device" indicates that the computer cannot find the boot device that contains the operating system<sup>12</sup>. This can happen if the hard drive that stores the operating system is damaged or failed, and the BIOS cannot detect it or read from it<sup>23</sup>. A failed hard drive can also cause other symptoms such as clicking noises, corrupted files, or slow performance<sup>4</sup>.

#### NEW QUESTION 250

- (Topic 3)

A business purchased a new multifunction printer that will be used to photocopy documents with hundreds of pages. A technician is configuring the printer. Which of the following features should the technician ensure is set up?

- A. SMB
- B. PCL
- C. ADF
- D. SSH

**Answer: C**

#### Explanation:

Automatic document feeder (ADF) is a feature that allows a multifunction printer to photocopy documents with hundreds of pages automatically without requiring manual intervention. ADF scans multiple pages from a stack of documents and feeds them into the printer one by one. SMB is a network protocol that allows file sharing and printer access among different devices on a network. PCL is a printer language that controls how data is formatted for printing. SSH is a network protocol that allows secure remote access to another device over an encrypted connection.

#### NEW QUESTION 253

- (Topic 3)

An IT technician is inspecting the internal components of a desktop computer to assess a suspected power issue with the motherboard. Which of the following connectors should the IT technician inspect further?

- A. RJ45
- B. Straight tip
- C. DB9
- D. Molex

**Answer: D**

#### Explanation:

The connector that the IT technician should inspect further is Molex. The Molex connector is used to provide power to the motherboard and other components in the computer. If there is a suspected power issue with the motherboard, the IT technician should inspect the Molex connector to ensure that it is properly connected and providing power to the motherboard<sup>1</sup>

#### NEW QUESTION 257

- (Topic 3)

An insurance company wants to implement cloud computing and would like a cloud solution in which the infrastructure is shared with businesses in the same industry. Which of the following cloud models BEST addresses the company's need?

- A. Community
- B. Private
- C. Public
- D. Hybrid

**Answer:** A

#### Explanation:

The cloud model that BEST addresses the company's need is the Community cloud model. A community cloud is a cloud infrastructure in which multiple organizations share resources and services based on common operational and regulatory requirements. The concept of a community cloud is akin to a community garden, where different individuals grow produce on a single piece of shared land<sup>1</sup>.

#### NEW QUESTION 259

- (Topic 3)

A user reports a repetitive clicking noise is coming from a personal laptop. A technician notes the laptop's inputs are severely delayed. Which of the following should the technician replace to resolve the issue?

- A. The memory
- B. The storage device
- C. The integrated keyboard
- D. The battery

**Answer:** B

#### Explanation:

A repetitive clicking noise coming from a laptop is usually a sign of a failing hard disk drive (HDD), which is a type of storage device that uses spinning platters and moving heads to read and write data. A failing HDD can also cause severe delays in input and output operations, as well as data loss or corruption. The technician should replace the HDD with a new one or upgrade it to a solid state drive (SSD), which is another type of storage device that uses flash memory and has no moving parts. Reference: <https://partners.comptia.org/docs/default-source/resources/a-core-series-combined-content-guide> (page 24)

#### NEW QUESTION 261

- (Topic 3)

A video game developer is requesting a new desktop computer with eight sticks of memory. The developer wants the desktop computer to take advantage of all available memory bandwidth without sacrificing performance. Which of the following would be the BEST solution?

- A. Triple-channel with DDR5 ECC RAM
- B. Quad-channel with DDR4 RAM
- C. Quad-channel with DDR5 SODIMM
- D. Dual-channel with DDR4 RAM

**Answer:** B

#### Explanation:

Quad-channel memory architecture allows the CPU to access four memory modules simultaneously, increasing the memory bandwidth and performance. DDR4 RAM is a type of memory that has higher speed and lower power consumption than DDR3. SODIMM is a smaller form factor of memory that is typically used in laptops, not desktops. ECC RAM is a type of memory that can detect and correct errors, but it is more expensive and slower than non-ECC RAM. Triple-channel memory architecture is less common and less efficient than quad-channel. References: <https://www.comptia.org/certifications/a#examdetails>  
<https://www.comptia.org/blog/what-is-ddr4-ram> <https://www.comptia.org/blog/what-is-quad-channel-memory>

#### NEW QUESTION 265

- (Topic 3)

A technician is troubleshooting an issue involving lines appearing down copied pages, but printed pages sent directly to the copier render as intended. Which of the following is the MOST likely cause of this issue?

- A. Empty imager drum
- B. Overheated system fuser
- C. Scratched scanner glass
- D. Third-party toner

**Answer:** C

#### Explanation:

If lines appear down copied pages but printed pages sent directly to copier render as intended, it could be due to scratched scanner glass which can cause lines or streaks on copied pages.

If there are lines appearing on copied pages, but not on printed pages sent directly to the copier, the issue is most likely caused by a scratch on the scanner glass.

References: <https://www.pacificoffice.com/how-to-fix-lines-on-copier/>

#### NEW QUESTION 266

- (Topic 3)

A user is unable to connect a mobile phone while in a car. However, a second mobile Device is able To connect in The same car, WHICH of the Following settings should the user check on the first phone?

- A. Wi-Fi
- B. Hotspot



- C. Bluetooth
- D. Location

**Answer:** C

**Explanation:**

To connect a mobile phone to a car, you need to pair them using Bluetooth, which is a wireless technology that allows secure local networks between devices<sup>1</sup>. If one phone can connect to the car but another cannot, it means that the first phone has Bluetooth enabled and paired with the car, while the second phone does not. Therefore, the user should check the Bluetooth settings on the second phone and make sure it is turned on and discoverable<sup>21</sup>.

**NEW QUESTION 267**

- (Topic 3)

A technician is working to connect an RS-232 serial signature pad to a customer's ultralightweight laptop. Which of the following should the technician use to install the device?

- A. Port replicator
- B. Wi-Fi Direct
- C. Hotspot
- D. USB-C cable

**Answer:** D

**Explanation:**

A USB-C cable is the best option for installing an RS-232 serial signature pad to an ultralightweight laptop. USB-C is a universal connector that supports various protocols and devices, including serial devices. A port replicator is a device that expands the connectivity options of a laptop by providing additional ports. Wi-Fi Direct is a wireless technology that allows devices to connect directly without a router or access point. Hotspot is a feature that allows a device to share its internet connection with other devices via Wi-Fi, Bluetooth, or USB.

**NEW QUESTION 268**

- (Topic 3)

Which of the following virtualization technologies allows Linux and Windows operating system to run concurrently?

- A. Test environment
- B. Sandbox
- C. Legacy OS
- D. Cross-platform

**Answer:** D

**Explanation:**

Reference: <https://www.comptia.org/training/books/a-core-1-220-1101-study-guide> (page 59)

**NEW QUESTION 272**

- (Topic 3)

Which of the following cables should be used to terminate ST connectors on each end?

- A. Optical fiber
- B. Coaxial
- C. Shielded twisted pair
- D. HDMI

**Answer:** A

**Explanation:**

Optical fiber is the type of cable that should be used to terminate ST connectors on each end. ST connectors are commonly used for fiber optic cables, which transmit data using light pulses. Coaxial, shielded twisted pair, and HDMI are not types of cables that use ST connectors, but different types of connectors and transmission methods.

**NEW QUESTION 273**

- (Topic 3)

Using the output below:

```
IPv4 Address: 172.25.1.39
Subnet Mask: 255.255.255.0
Router: 172.25.1.252
Name Server: 172.25.1.4
```

Which of the following is the default gateway?

- A. 172.25.1.252
- B. 172.25.1.39
- C. 172.25.1.4
- D. 255.255.255.0

**Answer:** A

**Explanation:**

The default gateway is the IP address of the router or device that connects a network to another network or the internet. In the output below, the default gateway is 172.25.1.252, as shown in the line “Default Gateway . . . . . : 172.25.1.252”. The other IP addresses are not default gateways, but either local IP addresses (172.25.1.39 and 172.25.1.4) or subnet masks (255.255.255.0).

**NEW QUESTION 275**

- (Topic 3)

Which of the following is an unsecure remote access protocol?

- A. SSH
- B. HTTPS
- C. SFTP
- D. Telnet

**Answer:** D

**Explanation:**

Telnet is an unsecure remote access protocol that allows a user to connect to a remote device and execute commands on it<sup>12</sup>. Telnet does not encrypt the data that is transmitted between the user and the device, which means that anyone who intercepts the network traffic can read the information, including usernames and passwords<sup>12</sup>. Telnet also does not authenticate the user or the device, which means that anyone can impersonate either party and gain unauthorized access<sup>1</sup>.

**NEW QUESTION 280**

- (Topic 3)

A software developer used client-side virtualization on a server to configure a web application. Although the application is working locally on the software developer's PC, other users on the LAN are not able to access the application. Which of the following would allow other users to access the application?

- A. Bridge networking
- B. Application virtualization
- C. Virtual desktop
- D. Site-to-site VPN

**Answer:** A

**Explanation:**

Client-side virtualization is used to run an application or process on a separate virtual machine, isolated from the main operating system. To allow other users on the LAN to access the application, the software developer should configure a bridge networking connection between the virtual machine and the LAN. This will allow the virtual machine to communicate with other computers on the network. Application virtualization, virtual desktop, and site-to-site VPN are not necessary steps for allowing other users to access the application.

**NEW QUESTION 282**

- (Topic 3)

A technician is working with a user to set up scanning. The user requires the scans to be viewable on the network for the entire department. Which of the following settings on the MFP should the technician edit to BEST address the user's request?

- A. Scan to email
- B. Server message block
- C. Secured prints
- D. Web services
- E. Printer share

**Answer:** B

**Explanation:**

Server message block (SMB) is the setting on the multifunction printer (MFP) that the technician should edit to best address the user's request of making the scans viewable on the network for the entire department. SMB is a network protocol that allows file sharing and printer access among different devices on a network. The technician can configure the MFP to scan to a shared folder on the network using SMB. Scan to email is a feature that allows the MFP to send scanned documents as email attachments, which may not be viewable by everyone in the department. Secured prints is a feature that allows the MFP to print documents only after entering a PIN or password, which does not address the user's request. Web services is a feature that allows the MFP to access online services such as cloud storage or email, which may not be viewable by everyone in the department either. Printer share is not a setting on the MFP, but a feature that allows a device to share its printer with other devices on a network.

**NEW QUESTION 283**

- (Topic 3)

An organization keeps receiving spam that appears to come from its own domain. No accounts have been compromised. Which of the following will BEST mitigate this issue?

- A. DNS
- B. S/MIME
- C. SPF
- D. SSID

**Answer:** C

**Explanation:**

The BEST solution to mitigate spam that appears to come from an organization's own domain is to implement SPF (Sender Policy Framework). SPF is an email validation protocol designed to detect and prevent email spoofing, which is a common tactic used by spammers. By publishing SPF records in the organization's DNS (Domain Name System), the recipient's mail server can check if an incoming email originated from a valid source. If the email fails SPF authentication, it can be blocked or flagged as spam. Therefore, SPF helps to prevent email spoofing and mitigate the risk of spam coming from an organization's own domain.

#### NEW QUESTION 284

- (Topic 3)

A user is traveling to another country and will be unable to get personal cell phone service after the plane lands. Which of the following should the user update to resolve the issue?

- A. CDMA
- B. PRL
- C. MDM
- D. GPS

**Answer: B**

#### Explanation:

Updating the preferred roaming list (PRL) is what a user should do to resolve the issue of being unable to get personal cell phone service after traveling to another country. The PRL is a database that contains information about cell towers and frequencies that a phone can use in different areas. Updating the PRL can improve the phone's ability to connect to local networks and avoid roaming charges. CDMA is a type of cellular technology that uses code division multiple access to transmit data over radio frequencies. MDM is an acronym for mobile device management, which is a type of software solution that allows remote management and security of mobile devices. GPS is an acronym for global positioning system, which is a satellite-based navigation system that provides location and time information

#### NEW QUESTION 285

- (Topic 3)

A technician is upgrading a computer OS from Windows 7 to Windows 10. During the OS installation, the system is not able to find the hard drive. Which of the following can the technician do to MOST likely fix the issue?

- A. Change the partition to MBR
- B. Load the HDD drivers using a flash drive.
- C. Upgrade the RAM modules.
- D. Replace the hard drive.

**Answer: B**

#### Explanation:

Loading the hard disk drive (HDD) drivers using a flash drive is the most likely action that can fix the issue of a computer not being able to find the hard drive during an OS installation from Windows 7 to Windows 10. The HDD may have a different interface or controller than what Windows 10 supports by default, such as SATA or RAID, which would require loading additional drivers during the installation process. The technician can use a flash drive to load the drivers from another device or source. Changing the partition to MBR, upgrading the RAM modules, or replacing the hard drive are not likely to fix the issue, as they are not related to the HDD drivers

#### NEW QUESTION 289

- (Topic 3)

A technician is troubleshooting a laptop that is unable to browse the internet when connected to the company's wireless network. The technician has verified network connectivity is functional when using an Ethernet cable. Which of the following should the technician use to check if the laptop's wireless NIC is functional?

- A. Hotspot
- B. Near-field communication
- C. Ethernet tap
- D. Spectrum analyzer

**Answer: A**

#### Explanation:

A hotspot is a wireless access point that provides internet access to devices that are connected to it. The technician can use a hotspot to check if the laptop's wireless NIC is functional by connecting the laptop to the hotspot and then trying to browse the internet. If the laptop is able to browse the internet, then the wireless NIC is functional. Near-field communication (NFC) is a wireless technology that allows two devices to communicate with each other when they are in close proximity. NFC is not typically used to check if a wireless NIC is functional.

An Ethernet tap is a device that is used to monitor network traffic. An Ethernet tap is not typically used to check if a wireless NIC is functional.

A spectrum analyzer is a device that is used to measure the frequency spectrum of a signal. A spectrum analyzer is not typically used to check if a wireless NIC is functional. Therefore, the correct answer is A. Hotspot.

#### NEW QUESTION 291

- (Topic 3)

A user has noticed high CPU temperatures when gaming. The user would like to lower the CPU temperature, and cost is not an issue. Which of the following should the user do to BEST cool the CPU while keeping noise to a minimum?

- A. Upgrade the thermal paste.
- B. Use a copper heat sink.
- C. Upgrade the CPU fan.
- D. Install liquid cooling.

**Answer: D**

#### Explanation:

Liquid cooling is a method of cooling the CPU by circulating a liquid through a closed loop that absorbs heat from the CPU and transfers it to a radiator. Liquid cooling is more effective and quieter than air cooling, which uses a fan and a heat sink. However, liquid cooling is also more expensive and complex to install. Upgrading the thermal paste, using a copper heat sink, or upgrading the CPU fan are ways to improve air cooling, but they will not lower the CPU temperature as much as liquid cooling. References: <https://www.comptia.org/certifications/a#examdetails> <https://www.comptia.org/blog/what-is-liquid-cooling>

#### NEW QUESTION 292

- (Topic 3)

A user's laptop is running out of disk space and requires a new hard drive. The user wants to replace the existing hard drive with the fastest possible 1 TB HDD. A technician assesses the user's hardware and determines the connections that are available. Which of the following drive types should the technician recommend as the BEST choice?

- A. 1TB NVMe SSD
- B. 1TB flash drive
- C. 1TB SATA SSD
- D. 1TB SAS

**Answer:** A

**Explanation:**

The best choice for the user's laptop is a 1TB NVMe SSD. NVMe (Non-Volatile Memory Express) is a high-performance storage protocol designed specifically for solid-state drives (SSDs). It is significantly faster than SATA SSDs and SAS hard drives, making it ideal for users who need fast storage for their laptop. NVMe SSDs also have lower latency and higher bandwidth than traditional hard drives, making them well-suited for data-intensive tasks such as video editing, gaming, and running multiple applications simultaneously. Additionally, NVMe offers more reliable data reliability than traditional hard drives, and is less susceptible to performance degradation over time.

**NEW QUESTION 295**

- (Topic 3)

A user wants RAID to be configured on a desktop to allow the fastest speed and maximum storage capacity. Which of the following RAID types should a technician configure to accommodate this request?

- A. 1
- B. 5
- C. 10

**Answer:** A

**Explanation:**

RAID 0 is a configuration that stripes data across multiple disks without parity or redundancy. It provides the fastest speed and maximum storage capacity among the RAID types listed, but it also has no fault tolerance. RAID 1 mirrors data across two disks, providing redundancy but halving the storage capacity. RAID 5 stripes data across three or more disks with parity, providing fault tolerance but reducing the storage capacity by one disk. RAID 10 combines mirroring and striping across four or more disks, providing both speed and redundancy but reducing the storage capacity by half.

**NEW QUESTION 299**

- (Topic 3)

Which of the following components houses the MX record?

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

**Answer:** A

**Explanation:**

The MX record is housed in the DNS (Domain Name System) which is responsible for translating domain names into IP addresses and vice versa. The MX record specifies the mail server responsible for accepting email messages on behalf of a domain name and is a resource record in the DNS.

**NEW QUESTION 300**

- (Topic 4)

A customer's phone no longer charges fully. The phone only charges to 67% and then stops. Which of the following should be replaced to resolve this issue?

- A. The phone
- B. The charger
- C. The battery
- D. The SD card

**Answer:** C

**Explanation:**

The correct answer is C. The battery.

The battery is the component that stores and provides electrical power to the phone. The battery can degrade over time and lose its capacity to hold a full charge. This can cause the phone to stop charging at a certain percentage and run out of power faster. To resolve this issue, the battery should be replaced with a new one that is compatible with the phone model and manufacturer.

To replace the battery, the customer may need to follow different steps depending on the type of phone and battery. Some phones have removable batteries that can be easily accessed by opening the back cover of the phone and sliding out the old battery. Other phones have non-removable batteries that are sealed inside the phone and require special tools and skills to open the phone and disconnect the old battery. In this case, the customer may need to contact the phone manufacturer or a professional service center for assistance.

Reference: Troubleshooting Mobile Devices – CompTIA A+ 220-1101 – 5.5

**NEW QUESTION 303**

- (Topic 4)

Which of the following best describes metered utilization for cloud computing?

- A. Cloud resources are billed to clients based on usage.
- B. Cloud resources are shared with other companies conducting similar business.



- C. Cloud resources are available at a fixed amount for a fixed price.
- D. Cloud resources are located in the on-site data center.

**Answer:** A

**Explanation:**

Metered utilization for cloud computing is a pricing model where cloud service providers charge clients based on the amount of resources they consume, such as network bandwidth, storage space, CPU cycles, or memory. This allows clients to pay only for what they use, rather than a fixed amount or a subscription fee. Metered utilization can also enable clients to scale their cloud resources up or down according to their needs and demand.

References: The following web search results provide more information about metered utilization for cloud computing:

? Understanding Metered Billing For Cloud Infrastructure - Togai: This article explains the concept of metered billing, its advantages, and how it works for cloud infrastructure services.

? Usage Metering and Throttling in Cloud Computing: This article discusses the importance of metering and throttling in cloud computing, and how they are implemented in WSO2 Stratos, a cloud platform as a service (PaaS) solution.

? Cloud Volumes Service Metered Billing: Control Your Cloud ... - NetApp: This article describes how NetApp's Cloud Volumes Service offers metered billing for cloud storage, and how it can help clients reduce their cloud costs and optimize their performance.

**NEW QUESTION 306**

- (Topic 4)

A technician is configuring a desktop RAID to allow for the best I/O performance and the most storage capacity possible. Which of the following RAID types should the technician use?

- A. 5
- B. 6
- C. 10

**Answer:** A

**Explanation:**

RAID 0 is a disk array configuration that splits data across two or more disks without parity or mirroring. RAID 0 provides the best I/O performance because it allows parallel read and write operations on multiple disks. RAID 0 also provides the most storage capacity possible because it does not use any disk space for redundancy. However, RAID 0 does not provide any fault tolerance and increases the risk of data loss if any disk fails. References: The Official CompTIA A+ Core 1 Student Guide (Exam 220-1101) eBook, page 252

**NEW QUESTION 310**

- (Topic 4)

A customer is reporting that some of the keys at the bottom edge on a laptop are hard to press and the track pad buttons require significant force to click. The technician inspects the laptop and does not notice any cracks or other damage to the chassis or screen. Which of the following is the most likely cause of the issue?

- A. The customer dropped the laptop.
- B. The digitizer has failed.
- C. The battery is swollen.
- D. An open bottle of rubbing alcohol fell onto the keyboard.

**Answer:** C

**Explanation:**

A swollen battery is the most likely cause of the issue that the customer is reporting. A swollen battery is a battery that has expanded in size due to a chemical reaction, gas buildup, or overheating. A swollen battery can cause pressure on the laptop's chassis, keyboard, track pad, and other components, making them hard to press or click. A swollen battery can also pose a fire hazard and damage the laptop's performance and lifespan. The other options are not as likely or relevant to the issue. Dropping the laptop may cause cracks or other visible damage to the chassis or screen, but the technician did not notice any. The digitizer is the part of the laptop that converts touch input into digital signals, and it has nothing to do with the keyboard or the track pad buttons. An open bottle of rubbing alcohol falling onto the keyboard may cause liquid damage, corrosion, or short circuits, but it would not affect the track pad buttons or the bottom edge of the keyboard.

To troubleshoot and resolve the issue, the technician should remove the battery from the laptop and inspect it for signs of swelling, such as bulging, deformation, or leakage. The technician should also check the laptop's chassis, keyboard, and track pad for any signs of damage or warping caused by the battery. The technician should then replace the swollen battery with a new one that is compatible with the laptop's model and specifications. The technician should also dispose of the swollen battery properly and safely, following the local regulations and guidelines.

References:

? CompTIA A+ Certification Exam Core 1 Objectives1

? The Official CompTIA A+ Core 1 Student Guide (Exam 220-1101) eBook2

? How to Fix a Swollen Laptop Battery - Lifewire3

? How to Tell If Your Laptop Battery Is Swollen - Techwalla4

**NEW QUESTION 312**

- (Topic 4)

A user reports that a printer pulls multiple sheets of paper from the paper tray instead of a single sheet. Which of the following should a technician investigate to resolve this issue? (Select two).

- A. Toner cartridge
- B. Tractor feed
- C. Pickup roller
- D. Separation pad
- E. Duplexer
- F. Fuser

**Answer:** CD

**Explanation:**

The correct answers are C. Pickup roller and D. Separation pad.

A pickup roller is a rubber wheel that grabs the paper from the paper tray and feeds it into the printer. A separation pad is a small piece of cork or rubber that prevents more than one sheet of paper from being fed at a time. If the pickup roller or the separation pad is worn out, dirty, or damaged, it can cause the printer to pull multiple sheets of paper instead of a single sheet. This can lead to paper jams, misprints, or wasted paper.

To resolve this issue, a technician should investigate the condition of the pickup roller and the separation pad and replace them if necessary. The technician should also clean the paper tray and make sure the paper is loaded correctly and not stuck together.

A toner cartridge is a component that contains the toner powder used to create the printout on a laser printer. A tractor feed is a mechanism that uses sprockets to move continuous paper through a dot matrix printer. A duplexer is a device that allows a printer to print on both sides of the paper automatically. A fuser is a part of a laser printer that melts the toner onto the paper using heat and pressure. None of these components are related to the issue of pulling multiple sheets of paper from the paper tray.

Reference: Types of Printers—What You Need to Know for the CompTIA A+ Exams

### NEW QUESTION 313

- (Topic 4)

A technician assembled a new PC. After a few minutes, the computer slows down and then shuts itself off. Which of the following is the most likely cause of the failure?

- A. Thermal paste was not used.
- B. The GPU needs additional power.
- C. The memory is insufficient.
- D. The motherboard is incompatible.

**Answer:** A

#### Explanation:

The most likely cause of the failure is A. Thermal paste was not used.

Thermal paste, also known as thermal grease or thermal compound, is a substance that is applied between the CPU and the heat sink to improve the heat transfer and cooling of the CPU. Thermal paste fills the gaps and irregularities between the CPU and the heat sink, creating a better contact and reducing the thermal resistance .

According to some web search results , some signs and symptoms of not using thermal paste or using it incorrectly are:

- The CPU overheats and slows down or shuts down to prevent damage
- The CPU fan spins faster and louder to try to cool down the CPU
- The PC performance drops or becomes unstable
- The PC crashes or displays errors or blue screens

To fix this issue, the technician should apply thermal paste properly between the CPU and the heat sink, following these steps :

- Turn off the PC and unplug it from the power source
- Open the PC case and locate the CPU fan and heat sink
- Remove the CPU fan and heat sink from the motherboard
- Clean the surfaces of the CPU and heat sink with a lint-free cloth and alcohol
- Apply a small amount of thermal paste (about the size of a grain of rice) in the center of the CPU
- Reattach the heat sink and CPU fan to the motherboard, making sure they are aligned and secured
- Close the PC case and plug it back to the power source

The GPU needs additional power, the memory is insufficient, or the motherboard is

incompatible are not likely causes of the failure, since they would not cause the PC to overheat and shut down after a few minutes. The GPU needs additional power if it has a high power consumption that exceeds the capacity of the power supply or the PCIe slot. The memory is insufficient if it cannot handle the applications or tasks that are running on the PC. The motherboard is incompatible if it does not support the CPU, RAM, or other components that are installed on it. These issues may cause poor performance, errors, or crashes, but not overheating and shutting down.

### NEW QUESTION 315

- (Topic 4)

A regularly used laser printer is printing vertical lines on each page\_ Which of the following should the technician do first?

- A. Lower the printing contrast.
- B. Change the paper type
- C. Install a new fuser.
- D. Replace the toner cartridge

**Answer:** D

#### Explanation:

The answer is D. Replace the toner cartridge.

Vertical lines on a laser printer output are usually caused by a faulty or empty toner cartridge, a dirty or damaged drum unit, or a clogged or obstructed laser glass.

According to the web search results, some possible steps to troubleshoot and resolve this issue are:

? Check the toner level and replace the toner cartridge if it is low or empty<sup>1</sup>.

? Remove the toner cartridge and inspect the drum unit for any signs of damage, such as scratches, cracks, or toner buildup. Clean the drum unit with a soft cloth or replace it if it is damaged<sup>23</sup>.

? Locate the laser glass, which is a narrow strip of glass under the scanner lid or inside the printer. Clean the laser glass with a lint-free cloth moistened with water and remove any dust, dirt, or debris that might block the laser beam<sup>24</sup>.

### NEW QUESTION 318

- (Topic 4)

A technician attempts to join a Windows client to a domain but receives the following error: An attempt to resolve the hostname has failed.

The technician generates the display shown below utilizing ipconfig /all.

```
Physical Address:      80-3F-6C-33-32-C5
IPV4 Address:    192.168.12.144
Subnet Mask:     255.255.255.0
Default Gateway: 192.168.12.254
DNS Server:      127.0.0.1
```

Which of the following is the most likely reason for the error?

- A. DNS
- B. Physical address
- C. Subnet mask
- D. IPv4 address
- E. Default gateway

**Answer:** A

**Explanation:**

The most likely reason for the error is that the DNS server is not configured correctly. The technician should check the DNS server settings and make sure they are correct.

DNS, or Domain Name System, is a service that translates domain names, such as [www.example.com](http://www.example.com), into IP addresses, such as 192.168.1.1, that computers use to communicate with each other. DNS is essential for joining a Windows client to a domain, which is a logical group of computers that share a common directory and security policy. A domain name, such as [example.com](http://example.com), identifies the domain and its members on the network.

To join a Windows client to a domain, the client needs to resolve the hostname of the domain controller, which is the server that manages the domain and its resources. The client sends a DNS query to the DNS server, asking for the IP address of the domain controller. The DNS server responds with the IP address, and the client uses it to establish a connection with the domain controller and complete the domain join process.

However, if the DNS server is not configured correctly, the client may not be able to resolve the hostname of the domain controller, and receive the error: An attempt to resolve the hostname has failed. This can happen if the DNS server is not reachable, not authoritative, or not updated. For example, the DNS server may have an incorrect IP address, a wrong DNS suffix, a missing or outdated DNS record, or a firewall blocking the DNS traffic.

To fix the error, the technician should verify that the DNS server settings on the client and the domain controller are correct and consistent. The technician can use the `ipconfig /all` command to display the DNS server settings, such as the IPv4 address, the subnet mask, the default gateway, and the DNS suffix. The technician can also use the `nslookup` command to test the DNS resolution and the `ping` command to test the connectivity. The technician should make sure that the client and the domain controller are using the same DNS server, and that the DNS server can resolve the hostname of the domain controller. References:

? How to Resolve the "Temporary failure in name resolution" Error<sup>1</sup>

? Strict hostname resolution configured but no hostname was set<sup>2</sup>

? Error: Hostname Not Resolved to an IP Address - HostGator<sup>3</sup>

? The Host Name Could Not be Resolved in DNS<sup>4</sup>

? Troubleshoot DNS name resolution on the Internet - Windows Server<sup>5</sup>

**NEW QUESTION 322**

- (Topic 4)

A technician is installing a network interface card in a desktop computer. Which of the following connectors should the technician use to connect the card to the computer's motherboard?

- A. PCIe
- B. AGP
- C. USB
- D. IDE

**Answer:** A

**Explanation:**

PCIe (Peripheral Component Interconnect Express) is a type of expansion slot that connects network interface cards (NICs) and other devices to the motherboard. PCIe slots have different sizes and speeds, such as x1, x4, x8, x16, and x32. PCIe slots are faster and more versatile than older types of expansion slots, such as AGP (Accelerated Graphics Port) and IDE (Integrated Drive Electronics).

References: The Official CompTIA A+ Core 1 Student Guide (Exam 220-1101) eBook, page 2-13.

**NEW QUESTION 327**

- (Topic 4)

Which of the following 802.11 Wi-Fi protocols utilizes the 5.0GHz frequency and has the BEST speed and reception?

- A. 802.11a
- B. 802.11 ax
- C. 802.11b/g/n
- D. 802.11n

**Answer:** B

**Explanation:**

802.11 ax is a wireless networking protocol that utilizes the 5.0GHz frequency and has the best speed and reception among the options given. 802.11 ax offers higher data rates, lower latency, increased capacity, and improved power efficiency than previous protocols. It is also known as Wi-Fi 6 or High Efficiency Wireless (HEW). 802.11a also uses the 5.0GHz frequency, but it is an older protocol that has lower speed and reception than 802.11 ax. 802.11b/g/n use the 2.4GHz frequency, which is more crowded and prone to interference than the 5.0GHz frequency. 802.11n can use both frequencies, but it is also slower and less efficient than 802.11 ax. Reference: <https://www.comptia.org/training/books/a-core-1-220-1101-study-guide> (page 82)

#### NEW QUESTION 330

- (Topic 4)

A network engineer recently deployed a new application server in a cloud environment. Which of the following should be implemented to prevent a single point of failure within the system?

- A. Rapid elasticity
- B. RAID
- C. High availability
- D. Shared resources

**Answer:** C

#### Explanation:

High availability is a design principle that ensures a system or service can operate continuously without significant downtime or disruption. High availability can be achieved by implementing redundancy, failover, load balancing, and backup strategies. High availability can prevent a single point of failure within the system, which means that if one component fails, another one can take over its function. Rapid elasticity is the ability to scale up or down the resources of a system according to the demand, but it does not prevent a single point of failure. RAID is a method of storing data across multiple disks to provide redundancy and performance, but it does not prevent a single point of failure at the server level. Shared resources are the resources that are pooled and accessed by multiple users or systems, but they do not prevent a single point of failure either. References: <https://www.comptia.org/blog/what-is-cloud-computing>

#### NEW QUESTION 331

- (Topic 4)

A user attempts to connect a laptop to a projector but receives the following message from the projector: Out of Range. Which of the following needs to be addressed first?

- A. Change the resolution settings.
- B. Check the video cable and replace it if necessary.
- C. Set the computer's display settings to extend/duplicate.
- D. Verify that the laptop video card driver is the most up-to-date version.

**Answer:** A

#### Explanation:

The most likely answer is A. Change the resolution settings.

The error “Out of Range” normally means that the resolution being output by the computer is not compatible with the projector. The resolution is the number of pixels that are displayed on the screen. If the resolution is too high for the projector, it may not be able to display the image correctly or at all<sup>12</sup>.

To resolve this issue, you should try lowering the resolution settings on your laptop to match the native resolution of the projector or a lower one. You can do this by following these steps<sup>1</sup>:

- Right-click on an empty area of your desktop and select Display settings.
- Under Scale and layout, click on Display resolution and choose a lower option from the drop-down menu.
- Click Apply and then Keep changes.
- Reconnect your laptop to the projector and check if the image is displayed properly.

If changing the resolution settings does not help, you may need to check other factors,

such as the video cable, the display settings, or the video card driver. However, these are less likely to cause the “Out of Range” error than the resolution settings.

#### NEW QUESTION 335

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