



Vendor: CompTIA

Exam Code: 220-1201

Exam Name: CompTIA A+ Certification Exam: Core 1

Version: 25.071

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QUESTION 1

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

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

Answer: B

Explanation:

A keystone correction adjusts the image shape when a projector is angled either up or down. When a projector is not positioned directly perpendicular to the screen, the image becomes distorted or offset. Correcting the keystone will resolve alignment issues, ensuring that the presentation matches the display.

QUESTION 2

A salesperson is unable to use a personal device to access emails and calendar features at a client site but was able to use the device while at the office.

Which of the following policies has been enforced on the salesperson's mobile device?

- A. MOW
- B. MAN
- C. MFA
- D. MAM

Answer: D

Explanation:

Mobile Application Management (MAM) enforces policies restricting access to apps and services based on location, ensuring security at external sites.

QUESTION 3

A help desk technician needs to work on a high-volume printer. Users have reported occasional paper jams and smudges appearing on printed documents.

Which of the following steps should the technician do next to address these issues?

- A. Perform a full factory reset.
- B. Check and clean the rollers.
- C. Change all the ink or toner cartridges.
- D. Replace the fuser.

Answer: B

Explanation:

Paper jams and smudging in high-volume printers are often caused by dirty or worn rollers. Rollers are responsible for feeding the paper through the printer. Over time, they accumulate dust, toner residue, or wear out, resulting in misfeeds or jams. Cleaning or replacing them typically resolves this issue.

QUESTION 4

Which of the following is designed to be used in commercial spaces?

- A. USB 3.1 Gen 2
- B. Straight tip fiber connector
- C. Plenum cabling
- D. Cat 8

Answer: C

Explanation:

Plenum cabling is designed for use in commercial spaces where cables run through air ducts or plenum spaces, as it has fire-resistant properties and emits less toxic smoke.

QUESTION 5

A technician needs to ensure all data communications on all network devices are encrypted when logging in to the console.

Which of the following protocols should the technician enable?

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

Answer: A

Explanation:

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

QUESTION 6

Users are complaining that the audio from a presenter is choppy and unintelligible Which of the following is causing the issue?

- A. Webcam
- B. Digitizer
- C. inverter
- D. Microphone

Answer: D

Explanation:

Choppy or unintelligible audio is typically caused by issues with the microphone, such as poor quality, hardware defects, or misconfiguration.

QUESTION 7

A technician is troubleshooting stylus issues on identical, company-provided tablets. Users can purchase their own accessories. Some users have no issues, but others report that their styluses charge intermittently and die frequently.

Which of the following is the most likely cause of this issue?

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

Answer: A

Explanation:

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

QUESTION 8

A customer needs to install a new printer in their network. The customer reports that users had intermittent connectivity issues with previous printers.

Which of the following should the technician configure on the new printer to prevent this issue?

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

Answer: C

Explanation:

Intermittent connectivity issues with network printers are commonly caused by changing IP addresses when using DHCP. Assigning a static IP address ensures that the printer is always reachable at the same IP address by client machines.

QUESTION 9

A technician needs to confirm that desktop PCs can be deployed to a global, remote workforce. Which of the following specifications should the technician validate?

- A. Input voltage
- B. BIOS language support
- C. Supply chain security
- D. Power efficiency

Answer: A

Explanation:

Input voltage must be validated to ensure desktop PCs can operate in different regions with varying power standards (e.g., 110V in North America vs. 220V in Europe). Failure to verify input voltage compatibility can lead to hardware damage or operational issues.

QUESTION 10

A technician has discovered that some users are connected to a network that is not available on the user interface.

Which of the following is the most effective tool the technician can use to identify networks that are not broadcasting SSIDs?

- A. Cable tester
- B. Toner probe
- C. Wi-Fi analyzer
- D. Loopback plug

Answer: C

Explanation:

A Wi-Fi analyzer is a tool used to detect and analyze wireless networks, even those that are not

broadcasting their SSIDs (hidden networks).

It provides detailed information about nearby networks, including signal strength, channel usage, and security protocols.

In this case, the Wi-Fi analyzer can identify the hidden networks that users are connected to, which are not visible on the standard user interface.

QUESTION 11

A company needs to keep a record of tasks performed by an application. Which of the following should the company most likely implement as part of a solution?

- A. Fileshare
- B. Syslog
- C. Database
- D. SAN

Answer: B

Explanation:

Syslog is used to log system events and tasks performed by applications, providing a centralized record of activity.

QUESTION 12

A user reported performance issues on a computer after a recent OS update. A technician is confident that rolling back the system will resolve the issue.

Which of the following steps should the technician take next?

- A. Document the findings.
- B. Investigate any recent infrastructure changes.
- C. Initiate the system restore.
- D. Verify full system functionality.

Answer: C

Explanation:

If the technician is confident that rolling back the system to a previous restore point will resolve the issue, the next logical step is to initiate the System Restore process. System Restore allows the system to revert to a state before the OS update, which can eliminate the performance issues caused by the update.

QUESTION 13

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

Which of the following can balance a cost-effective solution with uptime requirements?

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

Answer: C

Explanation:

Redundant PSUs provide fault tolerance by ensuring that if one power supply fails, another will take over seamlessly.
This is a cost-effective way to increase uptime while waiting for the UPSs to arrive.

QUESTION 14

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

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

Answer: CE

Explanation:

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

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

QUESTION 15

A user wants to print files from an overseas office using a shared network folder. The user's laptop has no public-facing internet connectivity.
Which of the following can be used to print from the shared network folder?

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

Answer: D

Explanation:

SMB (Server Message Block) is a protocol used to access files and printers over a network, including across shared network folders. It enables the user to access and print files stored remotely on a shared directory.

QUESTION 16

A technician is putting RJ45 connectors on Cat 6 cables.
Which of the following tools should the technician use to secure the connectors?

- A. Loopback plug
- B. Wire cutters
- C. Punchdown
- D. Crimping

Answer: D

QUESTION 17

A salesperson is unable to reach the internet from a home office PC. A support technician wants to verify the router is receiving a valid public IP address. Which of the following is a valid public IP address in this scenario?

- A. 10.254.128.11
- B. 66.157.195.20
- C. 172.16.0.30
- D. 192.168.1.50

Answer: B

Explanation:

A valid public IP address must fall outside the private IP address ranges:

10.0.0.0 to 10.255.255.255

172.16.0.0 to 172.31.255.255

192.168.0.0 to 192.168.255.255

66.157.195.20 is outside these ranges, making it a public IP address.

QUESTION 18

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

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

Answer: B

Explanation:

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

QUESTION 19

A network administrator must ensure that a printer will still be assigned a specific IP address even if all addresses are depleted.

Which of the following network configuration concepts is this describing?

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

Answer: C

Explanation:

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

QUESTION 20

A group of friends is gathering in a room to play video games. One of the friends has a game

server. Which of the following network types should the group use so they can all connect to the same server and the internet?

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

Answer: C

Explanation:

The appropriate network type for this scenario is a Local Area Network (LAN), which is designed for small, localized networks, such as within a single building or room. LANs are ideal for gaming because they provide high-speed, low-latency connections.

QUESTION 21

When installing a network printer, a technician needs to ensure the printer is available after a network is restarted.

Which of the following should the technician set up on the printer to meet this requirement?

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

Answer: A

Explanation:

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

QUESTION 22

Which of the following cloud models would multiple organizations in the same industry most likely use?

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

Answer: C

Explanation:

A Community Cloud is designed for use by several organizations with shared concerns (e.g., security, compliance, jurisdiction). It's common in industries like healthcare or finance where multiple entities benefit from a common infrastructure with shared policies.

QUESTION 23

A user reports that the printouts from a laser printer have lines and smudges on them. The printer is also intermittently misfeeding the paper.

Which of the following components should a technician replace to address this issue?

- A. Fuser
- B. Maintenance kit

- C. Corona wire
- D. Toner cartridge

Answer: B

Explanation:

A maintenance kit for a laser printer often includes rollers, fuser, and other parts that wear out over time. If the printer is smudging and misfeeding, it's a sign that multiple components are failing, which a maintenance kit is designed to resolve.

QUESTION 24

A support technician receives a call stating that a user has added a device to the network. The user used the same configurations from another workstation. When both workstations are turned on, neither can access the network reliably. Which of the following is the most likely cause of the issue?

- A. The new computer has a duplicate IP address.
- B. The DNS server is registering both hostnames.
- C. The network cable was improperly terminated.
- D. The security on the switchport needs to be reset.

Answer: A

Explanation:

If two devices have the same static IP address, an IP conflict occurs. This results in both devices being intermittently disconnected or unable to communicate on the network. It's a common mistake when copying configurations manually.

QUESTION 25

A management team is concerned about enterprise devices that do not have any controls in place. Which of the following should an administrator implement to address this concern?

- A. MDM
- B. MFA
- C. vpn
- D. SSL

Answer: A

Explanation:

Mobile Device Management (MDM) enables administrators to enforce controls on enterprise devices, such as restricting apps, ensuring compliance, and remotely managing security policies.

QUESTION 26

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

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

Answer: A

Explanation:

An MX (Mail Exchange) record defines which mail servers are responsible for receiving email for a

domain. If you want to change or redirect email traffic, the MX record must be updated with the correct server information.

QUESTION 27

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

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

Answer: D

Explanation:

ECC (Error-Correcting Code) RAM is commonly used in servers to provide error detection and correction, improving reliability in critical systems. It is designed to detect and correct single-bit errors, ensuring data integrity in environments where stability is paramount.

QUESTION 28

A technician has just installed a new SSD into a computer, but the drive is not appearing. Which of the following is most likely the reason's?

- A. The SSD is faulty and should be replaced by the manufacturer
- B. The SSD has not been properly formatted and is not readable
- C. The SSD is incompatible with the motherboard
- D. The SSD has not been installed properly and should be reseated

Answer: D

Explanation:

Improper seating is the most common reason an SSD isn't recognized. Ensuring it is correctly connected resolves the issue.

QUESTION 29

A technician receives a S.M.A.R.T. error on a PC. When the technician presses the Esc key, the PC continues to turn on without any further issues. Which of the following should the technician do next?

- A. Replace the HDD.
- B. Update the PC's BIOS.
- C. Close the ticket.
- D. Change the NIC.

Answer: A

Explanation:

S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology):

S.M.A.R.T. is a monitoring system integrated into modern HDDs and SSDs that detects and reports on various indicators of drive health and reliability.

A S.M.A.R.T. error indicates that the drive is showing signs of impending failure, even if the PC continues to boot and work normally for the time being.

Next Steps:

The appropriate action is to replace the hard drive (HDD) because a S.M.A.R.T. error is an early warning of possible hardware failure. Ignoring the warning could result in data loss if the drive

fails completely. The technician should also back up the user's data immediately to avoid losing

QUESTION 30

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

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

Answer: B

Explanation:

Near-field communication (NFC) is a short-distance wireless communication method widely used in mobile payment systems like Apple Pay and Google Pay. Simply placing the device near a compatible terminal initiates the payment process.

QUESTION 31

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

- A. Enable the secondary configuration.
- B. Downgrade the firmware via USB.
- C. Start a warranty repair of the motherboard.
- D. Reapply thermal paste to the CPU.

Answer: A

Explanation:

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

QUESTION 32

Which of the following tools is best to track where an Ethernet cable is patched?

- A. Crimper
- B. Punchdown tool
- C. Cable stripper
- D. Toner probe

Answer: D

Explanation:

A toner probe (also known as a tone generator and probe) is the best tool for tracing and identifying cables in a patch panel or wall jack. The tone generator sends a signal through the wire, and the probe helps locate the cable by detecting the tone.

QUESTION 33

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

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

Answer: A

Explanation:

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

QUESTION 34

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

- A. Printer shares
- B. DHCP server
- C. Print server
- D. Printer subnet
- E. SMB configuration
- F. Printer Wi-Fi settings

Answer: AC

Explanation:

To allow multiple users to print to networked printers:

Printer shares enable users to access printers shared on the network. Print servers manage print jobs and provide centralized control of printing.

QUESTION 35

A customer is able to print most documents with their USB inkjet printer, but the system is unresponsive when printing a certain report from a custom application. Nothing will print until the computer is restarted and the printer is power cycled. A technician remotes into the PC and confirms that the spooler stops working when this report is sent. After cleaning the spooler and reinstalling the drivers from the manufacturer's website, the issue persists. No other sites using the application report similar issues.

Which of the following is most likely causing the issue?

- A. The manufacturer is curating content before it reaches the device to preserve ink.
- B. The application has a bug that the developer needs to address.
- C. The system is using the PostScript language instead of the PCL.
- D. Personal preferences have changed and documents with graphics are now online-only

Answer: B

Explanation:

If a print spooler crashes specifically with one application and no issue occurs on other systems, the most likely root cause is a bug within that specific application. Restarting the spooler and reinstalling drivers resolves system-wide or hardware-related issues--not app-specific failures. This indicates the application may be sending malformed print data.

QUESTION 36

Which of the following networking devices will most likely need to be installed in between the ISP running DOCSIS and the LAN in a SOHO environment?

- A. Switch
- B. Firewall
- C. Cable modem
- D. Router
- E. Access point

Answer: C

Explanation:

A cable modem is required to convert the signal provided by the ISP (Internet Service Provider) over a DOCSIS network into a format that is usable by the local area network (LAN). DOCSIS is a standard for high-speed internet over cable television infrastructure, and the cable modem acts as the gateway between the ISP's coaxial network and the LAN. Without the cable modem, devices in the LAN would not be able to access the internet.

QUESTION 37

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

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

Answer: C

Explanation:

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

QUESTION 38

A computer is experiencing random shutdowns. A technician notices that the fans on the computer work but are noisy. The CPU temperature is about 122°C (50°F) when the computer is started but rises to 208°C (98°F) when applications are opened. Which of the following would most likely fix this issue?

- A. Replacing the power supply
- B. Installing a high-performance heat sink
- C. Adjusting the fan settings
- D. Adding more RAM to the computer

Answer: B

Explanation:

Excessive heat buildup due to insufficient cooling is a primary cause of unexpected shutdowns. A high-performance heat sink improves thermal transfer, dissipates more heat, and helps maintain CPU temperature within safe limits. When CPU temperatures reach levels like 208°C (98°F), the

system may shut down to prevent damage.

QUESTION 39

An employee who travels worldwide wants a workstation to perform the same whether the workstation is in the corporate office environment or elsewhere. Which of the following should a technician implement?

- A. Public cloud
- B. VDI
- C. SSH
- D. SaaS

Answer: B

QUESTION 40

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

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

Answer: C

Explanation:

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

QUESTION 41

Which of the following describes the function of an injector?

- A. To provide only data connectivity
- B. To supply power across a cable
- C. To improve wireless performance
- D. To extend a network connection

Answer: B

Explanation:

A PoE injector is used to add power to an Ethernet cable, enabling the cable to deliver both power and data. This is crucial when connecting to PoE-enabled devices like IP cameras or wireless access points that are far from power outlets.

QUESTION 42

A technician is troubleshooting issues occurring on a user's mobile device. Applications and the OS have slow response times, even when performing simple tasks, such as writing an email. Additionally, new applications occasionally fail to launch. Which of the following should the technician do next?

- A. Move the device to a room with a colder temperature.
- B. Close unnecessary programs.
- C. Reset to factory default settings.
- D. Check the battery health of the device.

Answer: B

Explanation:

The symptoms -- slow response and failed app launches -- indicate that the device's memory or processing resources are overutilized. Closing unnecessary apps can free up RAM and CPU resources, improving performance.

QUESTION 43

A user reports slow internet browsing. The technician finds high CPU and memory usage, and pop-ups occur every minute. Which of the following should the technician do next?

- A. Escalate to the network team to check end-to-end connectivity.
- B. Download and install the latest drivers.
- C. Update the anti-malware signatures and scan the system.
- D. Check the wireless settings and validate the DHCP configuration.

Answer: C

Explanation:

High resource usage along with frequent pop-ups are strong signs of a malware infection. The next logical step is to update anti-malware definitions and run a full scan to detect and remove threats.

QUESTION 44

A projector has been shutting down after 30 minutes of use, and it has a strange smell. The technician confirms the power source is not the cause of the issue. Which of the following steps should the technician take next to resolve this issue?

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

Answer: C

Explanation:

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

QUESTION 45

A user prints a job from a laser printer. The user wipes the page, and the words and images come off of it. The technician replaces the toner cartridge, but the issue persists. Which of the following components should the technician replace next?

- A. Fuser
- B. Drum

- C. Developer roller
- D. Discharge lamp

Answer: A

Explanation:

In laser printers, the fuser unit is responsible for melting the toner onto the paper using heat and pressure. If the toner rubs off easily, it's a clear sign the fuser is failing or not heating properly. Replacing the fuser will ensure the toner bonds correctly to the paper.

QUESTION 46

A technician wants to monitor network statistics for devices communicating with one another on the local subnet.

Which of the following devices should the technician install.

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

Answer: A

Explanation:

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

QUESTION 47

A technician receives a tablet that looks like it has a bulge inside. The bulge is pushing the screen away from the backplate. The tablet still turns on when it is plugged in, but the screen looks damaged and turns off when unplugged.

Which of the following is the most likely cause of this issue?

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

Answer: C

Explanation:

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

Physical Symptoms: The battery bulges, pushing the screen away. Operational Symptoms: The device may still power on when connected to a charger but fails to hold a charge due to battery degradation.

QUESTION 48

Which of the following devices is used to implement ACL policies for an environment?

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

Answer: D

Explanation:

A firewall implements ACLs (Access Control Lists) to filter traffic and enforce policies based on rules such as IP address, port, or protocol.

QUESTION 49

Which of the following is an advantage of using VDI?

- A. Authentication is not required on a domain.
- B. Licensing costs are minimized.
- C. Less manual configuration is needed for each workstation.
- D. A virus is automatically contained locally.

Answer: C

Explanation:

Virtual Desktop Infrastructure (VDI) hosts desktop environments on centralized servers. This allows rapid deployment and consistent configuration across multiple users, minimizing manual setup and easing IT management.

QUESTION 50

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

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

Answer: A

Explanation:

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

QUESTION 51

A technician is troubleshooting an all-in-one laser printer that prints a vertical line when making copies and scans. When users print or receive faxes, the output from the printer is correct. Which of the following should the technician examine to determine the cause of the issue?

- A. The pickup rollers
- B. The corona wire
- C. The document feeder
- D. The drum assembly

Answer: C

Explanation:

Since the issue only occurs during scanning and copying (not printing or faxing), the problem is isolated to the document feeder. A vertical line is typically caused by debris or damage on the glass under the ADF (Automatic Document Feeder), not on components related to printing.

QUESTION 52

A small company wants the ability to print in full color but needs to pay a minimal initial purchase price for the printer.

Which of the following is the best option?

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

Answer: B

Explanation:

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

QUESTION 53

Which of the following network services is used to assign an IP address to a network host?

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

Answer: A

Explanation:

DHCP (Dynamic Host Configuration Protocol) is the service used to automatically assign IP addresses to network hosts. It dynamically manages the distribution of IP addresses and configuration details (like subnet mask, gateway, and DNS servers), ensuring no two devices are assigned the same address on the network.

QUESTION 54

A systems administrator deploys BitLocker to all devices. However, one of the desktop PCs is not able to encrypt the boot drive.

Which of the following should the administrator check?

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

Answer: A

Explanation:

BitLocker Drive Encryption in Windows requires a Trusted Platform Module (TPM) to encrypt the boot drive securely. The TPM is a dedicated microcontroller designed to secure hardware through integrated cryptographic keys. It validates system integrity during boot and securely stores the encryption keys. If BitLocker cannot find a TPM or it is disabled in BIOS/UEFI, drive encryption cannot proceed. BitLocker can function without TPM using a USB startup key, but this compromises some security and is not recommended for managed enterprise environments.

QUESTION 55

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

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

Answer: C

Explanation:

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

QUESTION 56

A user reports that a software application functioned as expected the previous day, but this morning, the user is unable to launch the application.

Which of the following describe what the technician should do next?

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

Answer: B

Explanation:

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

QUESTION 57

A user experiences a random BSOD while using a computer, but the operating system recovers as expected.

Which of the following symptoms would indicate the issue is related to RAM?

- A. Wrong BIOS configurations
- B. Continuous reboots
- C. Distended capacitors
- D. POST code beeps

Answer: D

Explanation:

During the Power-On Self-Test (POST), the BIOS performs checks on system hardware, including RAM. If the RAM is faulty, POST may produce a series of beep codes indicating memory issues. These beep codes are often the first sign of RAM-related problems, especially if the BSOD occurs randomly.

QUESTION 58

Which of the following provides electricity to devices through network cables?

- A. Edge router
- B. PoE switch

- C. Access point
- D. Patch panel

Answer: B

Explanation:

A PoE (Power over Ethernet) switch transmits both data and electrical power over Ethernet cables to devices like wireless access points or VoIP phones. This is especially useful in areas where separate power sources are not available.

QUESTION 59

When turning on a workstation, a technician observes the following message:

"Bootable device not found."

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

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

Answer: B

Explanation:

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

QUESTION 60

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

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

Answer: C

Explanation:

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

QUESTION 61

A technician is working on a RAID 1 array that is apparently degraded. The technician verifies the RAM and power are both operating as expected.

Which of the following can the technician do to further isolate the issue?

- A. Perform individual drive diagnostics.
- B. Run the `chkdsk /i` command.
- C. Rebuild the RAID array.

D. Reconfigure the array as RAID 0.

Answer: A

Explanation:

A degraded RAID 1 array usually means one of the drives has failed or is failing. The correct next step is to run diagnostics on each drive to identify the faulty one. RAID 1 uses mirroring, so one good drive should still contain all the data.

QUESTION 62

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

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

Answer: A

Explanation:

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

QUESTION 63

Users working with large files back up the files to external hard drives. One user's files take longer to back up than other users' files. The user has tried backing up the files to other users' drives with the same results.

Which of the following steps should the technician take first to correct this issue?

- A. Replace the hard drive's USB cable.
- B. Defragment the user's external hard drive.
- C. Update the storage drivers on the user's system.
- D. Instruct the user to compress the files.

Answer: B

Explanation:

If a hard drive is heavily fragmented, file read/write operations can take significantly longer, causing slow backup speeds. Defragmenting the drive organizes the data for more efficient access.

QUESTION 64

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

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

Answer: D

Explanation:

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

a personal hotspot for internet access.

QUESTION 65

A financial institution needs a secure way to protect encryption keys used for unlocking chips on its credit cards. Which of the following should the institution use?

- A. TLS
- B. AMD
- C. HSM
- D. ARM

Answer: C

Explanation:

A Hardware Security Module (HSM) securely manages cryptographic keys, including those used to protect credit card chips.

QUESTION 66

Which of the following cloud models exclusively utilizes a local data center?

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

Answer: A

Explanation:

A Private Cloud is operated solely for a single organization. It is hosted on-premises or in a dedicated off-site data center, giving the company full control over data, security, and compliance -- often hosted in the organization's own local data center.

QUESTION 67

A customer reports that the output from their thermal receipt printer has vertical white lines. Which of the following would most likely resolve this issue?

- A. Replacing the ink cartridge
- B. Using the correct paper type
- C. Installing a maintenance kit
- D. Cleaning the heating element

Answer: D

Explanation:

Thermal printers create images using a heated print head on specially coated thermal paper. Vertical white lines indicate that part of the heating element is dirty or blocked, preventing heat transfer to the paper. Cleaning the print head (heating element) will restore full functionality.

QUESTION 68

A user returns from a trip and discovers a computer that is connected to the LAN times out intermittently. Upon investigation, a technician finds the RJ45 pin is not properly terminated. Which of the following networking tools is most appropriate to fix the issue?

- A. Toner probe
- B. Cable tester
- C. Punchdown
- D. Crimper

Answer: D

Explanation:

A crimper is used to terminate an RJ45 cable properly by attaching the connector to the twisted-pair wires.

If the termination is not done correctly, the connection will be intermittent or fail entirely.

QUESTION 69

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

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

Answer: B

Explanation:

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

QUESTION 70

Which of the following is a benefit of using a VLAN?

- A. It minimizes collision domains.
- B. It provides private access to cloud resources.
- C. It increases network address space.
- D. It enables secure network segmentation.

Answer: D

Explanation:

A VLAN (Virtual Local Area Network) segments a physical network into separate logical networks, enhancing security by isolating traffic.

QUESTION 71

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

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

Answer: B

Explanation:

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

QUESTION 72

A user is having issues when charging a device with a Lightning cable. The cable is not recognized when it is plugged into the device. This issue is usually resolved by flipping the cable over. This issue does not occur with other devices of the same type.

Which of the following would most likely cause the issue?

- A. The device needs to be restarted.
- B. The battery may be swelling and needs inspection.
- C. The cable is failing and needs to be replaced
- D. The charging port is dirty or damaged

Answer: D

Explanation:

When a Lightning cable works only when flipped a certain way or doesn't function consistently, it is typically due to debris or damage in the charging port. Cleaning the port or inspecting it for wear resolves the issue.

QUESTION 73

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

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

Answer: BD

Explanation:

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

Port 25 (SMTP - Simple Mail Transfer Protocol):

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

SMTP is an essential protocol for email traffic.

Port 110 (POP3 - Post Office Protocol v3):

POP3 is used for retrieving emails from a mail server. It is commonly used for downloading email messages to a local client, after which the messages are deleted from the server. While not as commonly used today (due to IMAP being preferred), POP3 is still a recognized email protocol, and its association with port 110 makes it a valid answer.

QUESTION 74

A new directive mandates the use of a security component to securely allow users to authenticate to systems, access sensitive data, and enter the office. The component must provide an

additional factor of authentication alongside user accounts and cannot be something the user owns. Which of the following components best meets these requirements?

- A. Fingerprint reader
- B. Smart card
- C. Secure token
- D. NFC scanner

Answer: B

Explanation:

A smart card provides an additional factor of authentication by storing secure credentials, such as certificates, that cannot be guessed or replicated. It complements user accounts and is "something you have".

QUESTION 75

While reviewing options in the BIOS/UEFI settings page to fix a laptop issue, a support technician notices an option to clear existing TPM keys.

Which of the following would most likely happen if the TPM is cleared?

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

Answer: A

Explanation:

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

QUESTION 76

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

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

Answer: D

Explanation:

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

QUESTION 77

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

operations. Which of the following hardware components is most likely at fault?

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

Answer: C

Explanation:

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

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

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

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

Solution: The technician should run a memory diagnostic tool, such as Windows Memory Diagnostic or MemTest86, to confirm if the RAM is at fault.

QUESTION 78

A technician is troubleshooting a connectivity issue on a network computer. The technician runs ipconfig in a command prompt and receives the following IP address: 169.254.0.6. Which of the following is most likely the type of IP address being assigned?

- A. DHCP reservation assignment
- B. Dynamic assignment
- C. Self-assignment
- D. Static assignment

Answer: C

Explanation:

An IP address starting with 169.254.x.x is a self-assigned address (also called APIPA or Automatic Private IP Addressing). It's used when a client device cannot contact a DHCP server. This address allows limited communication on the local network segment but no internet access.

QUESTION 79

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

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

Answer: B

Explanation:

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

QUESTION 80

A technician is having issues replacing a laptop's wireless card because the cover seems to be stuck.

Which of the following should the technician do next to troubleshoot this issued

- A. Check the product manual for the procedure
- B. Use a pry tool to force the cover open
- C. Insert the wireless card into the M.2 slot
- D. Try to move the cover by sliding it in all directions.

Answer: A

Explanation:

When hardware is not easily accessible, always consult the product manual for proper disassembly procedures. Forcing the cover can damage the laptop or void the warranty. Product manuals often provide step-by-step instructions for safely accessing internal components.

QUESTION 81

A user reports that their desktop PC does not turn on.

Which of the following components would most likely cause the issue?

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

Answer: A

Explanation:

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

QUESTION 82

Which of the following connectors can be used to charge most modern mobile devices and may have the capacity to send data audio and video?

- A. Lightning
- B. USB-C
- C. MicroUSB
- D. MiniUSB

Answer: B

Explanation:

USB-C is a versatile connector that supports charging, high-speed data transfer, and the ability to send audio and video signals (e.g., DisplayPort over USB-C).

It is used by most modern mobile devices and laptops because of its fast transfer speeds and power delivery capabilities.

QUESTION 83

A computer displays an error message indicating there is insufficient storage when installing applications. The user reports slow application load times. Which of the following replacement components would best resolve this issue?

- A. SSD
- B. USB
- C. HDD
- D. RAM

Answer: A

Explanation:

Upgrading to a solid-state drive (SSD) provides more storage space and faster read/write speeds, which resolves both the "insufficient storage" error and slow application loads.

QUESTION 84

Which of the following is the best to use when testing a file for potential malware?

- A. Multitenancy
- B. Test development
- C. Cross-platform virtualization
- D. Sandbox

Answer: D

Explanation:

A sandbox is a secure, isolated environment used to test potentially harmful software or code. It prevents the software from affecting the main system, allowing safe malware testing. This method is standard in cybersecurity best practices.

QUESTION 85

Which of the following cloud-computing concepts describes an environment in which various internal VM servers for a specific organization are stored within both a physical server and a cloud environment?

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

Answer: B

Explanation:

A hybrid cloud is a cloud computing environment that combines on-premises, private cloud, and public cloud resources. This configuration allows organizations to deploy workloads and data in a way that optimizes performance, security, and cost management.

Key Characteristics of a Hybrid Cloud:

Combines private cloud (on-premises or dedicated servers) and public cloud (resources accessed over the internet).

Allows for the movement of data and applications between private and public clouds.

Supports scenarios where certain data must remain on-premises for security or compliance reasons, while other workloads utilize the scalability of public cloud resources.

QUESTION 86

A user's device needs more memory, so a technician installs extra RAM with the following specifications:

2 x8Gb DDR3-1066 (PC3-S500)
1 x 16Gb DDR3-1333 (PC3-10600)

Which of the following speeds would maximize reliability?

- A. 1,066
- B. 1 333
- C. 8.500
- D. 10,600

Answer: A

Explanation:

When multiple RAM modules with different speeds are installed in a system, the system will default to the speed of the slowest module to maintain reliability and stability. In this case: The system contains two DDR3-1066 (PC3-8500) modules and one DDR3-1333 (PC3-10600) module. The slowest RAM speed is DDR3-1066 (PC3-8500), and the system will run all memory modules at this speed to prevent timing mismatches and data corruption.

QUESTION 87

A laptop's wireless speed has been very slow since a new router was installed. The user thinks the issue is because the router is misconfigured. Which of the following should a technician do first to diagnose this issue?

- A. Reproduce the issue with the user's laptop
- B. Connect using Ethernet to verify network speed
- C. Adjust the maximum transmission unit size on the user's laptop
- D. Update the network drivers

Answer: A

Explanation:

The first step in troubleshooting is to reproduce the issue. This ensures that the problem exists as reported, and the technician can observe it directly. In this case:

Testing the wireless speed on the user's laptop while connected to the new router allows the technician to verify the problem and gather evidence for further troubleshooting. Reproducing the issue helps confirm whether the problem is with the laptop, the router configuration, or other network factors.

QUESTION 88

A technician replaced a failed PSU on a high-end workstation PC. Now, the PC fails to POST and does not stay turned on for more than five seconds. Which of the following power connections was most likely forgotten during installation?

- A. 5V
- B. 12V
- C. 120V
- D. 220V

Answer: B

Explanation:

The issue described suggests the 12V CPU power connector was likely forgotten during installation. The 12V power rail is essential for the operation of high-end workstation components, including the CPU. Without the 12V connection, the system will fail to POST and may power off.

shortly after being turned on.

Why 12V?

The 12V connector is critical for providing power to the CPU via the motherboard. Modern CPUs require a dedicated power source from the PSU, usually supplied through the 4-pin or 8-pin EPS12V connector.

If this connection is omitted, the motherboard will not receive adequate power for the CPU to function, resulting in the system failing to POST or shutting down after a brief period.

QUESTION 89

Which of the following components enables finger-based screen input for two-in-one laptops?

- A. Fingerprint scanner
- B. Digitizer
- C. Stylus
- D. Inverter

Answer: B

Explanation:

A digitizer is the component in a two-in-one laptop that enables finger-based or stylus input on the screen. It is responsible for converting touch inputs into digital signals that the device can interpret.

Why Digitizer?

A digitizer is integrated into the screen assembly and works to detect and process inputs such as taps, swipes, or pinches.

This is a standard feature in modern touchscreens, enabling functionality for both finger-based and stylus-based interactions.

QUESTION 90

Following a security breach that revealed employee username and password information, an organization would like to implement additional security for users logging in to company devices. Which of the following would be the best solution for the organization to use?

- A. Biometric authentication
- B. Peer-reviewed log-ins
- C. Log-in scripts
- D. One-time tokens

Answer: D

Explanation:

In response to a security breach involving compromised credentials, one-time tokens provide an effective method to enhance authentication security. These tokens are part of multi-factor authentication (MFA) and generate unique codes for each login attempt, ensuring that even if credentials are stolen, unauthorized access is prevented.

Why One-time Tokens?

One-time tokens are dynamic and expire after a single use, significantly reducing the risk of unauthorized access even if usernames and passwords are compromised. Often delivered through apps like Google Authenticator, hardware tokens, or SMS.

QUESTION 91

A customer calls the help desk to report a problem connecting to a shared drive on a server. The technician determines that the user's server credentials have expired and reactivates them.

Which of the following should the technician do next?

- A. Escalate the issue.
- B. Document the findings.
- C. Perform backups of all critical data.
- D. Verify system functionality.

Answer: D

Explanation:

After resolving the immediate issue (reactivating server credentials), verifying system functionality ensures the solution works as intended and the user can now access the shared drive. This step is a part of the CompTIA troubleshooting methodology:

Identify the problem.

Establish a theory of probable cause.

Test the theory to determine the cause.

Establish a plan of action.

Implement the solution.

Verify full system functionality.

Document findings, actions, and outcomes.

QUESTION 92

Which of the following combinations of specifications and frequencies delivers the greatest speed and compatibility for IoT devices?

- A. A and 5GHz
- B. Band 2.4GHz
- C. G and 5GHz
- D. N and 2.4GHz

Answer: D

Explanation:

802.11n combined with the 2.4GHz frequency offers the greatest compatibility for IoT devices.

802.11n: Operates on both 2.4GHz and 5GHz bands, offering backward compatibility with older standards like 802.11b/g.

2.4GHz: Has longer range and better penetration through walls, making it ideal for IoT devices that are spread across large areas.

QUESTION 93

Which of the following is an email authentication method designed to detect email spoofing by attaching a digital signature to outgoing email?

- A. SPF
- B. DKIM
- C. DNS pointer
- D. MX records

Answer: B

Explanation:

DKIM (DomainKeys Identified Mail) is an email authentication method that attaches a digital signature to outgoing emails to verify the email's authenticity and detect email spoofing.

QUESTION 94

A user is reporting that a computer has been very slow in recent days. The technician looks into the problem and finds pop-ups are randomly appearing on the screen. Which of the following is the next step the technician must take?

- A. Establish a knowledge base.
- B. Establish a theory of probable cause.
- C. Establish a new theory and consider escalating.
- D. Establish a plan of action.

Answer: B

Explanation:

The technician has identified the symptoms (slow performance and random pop-ups) and must now establish a theory of probable cause, such as malware or spyware infection.

QUESTION 95

A user reports that, despite manually changing the date and time on a computer, the changes always revert after the computer is turned off for a period of time. Which of the following should the technician consider first?

- A. OS updates
- B. CMOS battery
- C. NTP server
- D. RAM

Answer: B

Explanation:

The CMOS battery powers the real-time clock (RTC) on the motherboard, which maintains the date and time when the computer is turned off. If the battery fails, the system will lose date and time settings, reverting to defaults on restart.

QUESTION 96

A user is unable to connect to network resources. A technician discovers that the user's device has an invalid static IP address. Which of the following should the technician configure on the user's device to request an IP address?

- A. SSH
- B. FTP
- C. DHCP
- D. DNS

Answer: C

Explanation:

DHCP (Dynamic Host Configuration Protocol) dynamically assigns IP addresses to devices on a network, resolving the issue of an invalid static IP address. Configuring the device to use DHCP allows it to request and receive a valid IP address automatically.

QUESTION 97

A company requires all users to have biometric identification enabled. Which of the following features in Windows provides this functionality?

- A. Bitlocker

- B. Hello
- C. Defender
- D. Trusted Platform Module

Answer: B

Explanation:

Windows Hello provides biometric authentication options, including facial recognition, fingerprint scanning, and iris scanning, aligning with the company's requirement for biometric identification.

QUESTION 98

An employee cannot connect to the wireless network at the office but can connect to a personal wireless network when at home. The technician verifies the wireless network name is correct, and the signal strength appears to be strong. Which of the following is the best action for the technician to take to resolve the issue?

- A. Install the current 802.1X certificate.
- B. Check the wireless router settings.
- C. Update the wireless driver.
- D. Disable the Windows firewall.

Answer: A

Explanation:

802.1X is a network authentication protocol commonly used in enterprise environments. If the user cannot connect to the office wireless network but can connect at home, the issue is likely related to the 802.1X certificate required for authentication. Installing or updating the certificate will resolve the issue.

QUESTION 99

Multiple organizations are working together on a project and want to migrate the data to the cloud.

Which of the following cloud models should be used?

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

Answer: D

Explanation:

A community cloud is designed for multiple organizations with shared goals or projects, allowing collaboration while maintaining a level of privacy. This cloud model is ideal for the scenario where organizations are working together and need to migrate project-related data to the cloud.

QUESTION 100

Which of the following cables provides the best performance with the least EMI?

- A. Cat 5
- B. Cat 6
- C. Cat 7
- D. Coaxial

Answer: C

Explanation:

Category 7 (Cat 7) cables provide the best performance with the least Electromagnetic Interference (EMI) due to their enhanced shielding. Cat 7 cables are designed to support higher speeds and bandwidth while reducing interference compared to Cat 5 or Cat 6.

QUESTION 101

When trying to print, a is offline. Other users can print to the same printer without error. Which of the following is the first step the technician should take to resolve this issue?

- A. Check the user's print queue settings.
- B. Check the printer's IP address.
- C. Check the user's network settings.
- D. Check the printer's firmware version.

Answer: A

Explanation:

When a printer is offline for one user but works for others, the issue often lies in the user's print queue settings, such as a paused queue or failed print jobs. Checking and clearing the print queue can resolve the problem.

QUESTION 102

A user arrives at the office and is unable to access the company's network on a smartphone. The user enables Wi-Fi on the smartphone, but it only shows the 5G symbol. Which of the following device settings should the user configure to fix this issue?

- A. Autoconnect
- B. VPN
- C. Encryption
- D. WPS

Answer: A

Explanation:

If the smartphone is showing a 5G symbol, it is connected to a cellular network rather than Wi-Fi. Enabling Autoconnect ensures the device automatically connects to the company Wi-Fi when in range, resolving the issue.

QUESTION 103

In which of the following cloud models is the customer not responsible for hardware and OS layers but is responsible for the data and the application?

- A. PaaS
- B. SaaS
- C. IaaS
- D. CaaS

Answer: A

Explanation:

In Platform as a Service (PaaS), the cloud provider manages the hardware, operating system, and middleware, while the customer is responsible for managing data and applications.

QUESTION 104

A technician is troubleshooting a recently installed printer that is leaving multiple lines and streaks on print jobs. Which of the following should the technician replace first?

- A. Rollers
- B. Drum
- C. Toner
- D. Fuser

Answer: C

Explanation:

Streaks and multiple lines on print jobs are commonly caused by an issue with the toner cartridge, such as a damaged or improperly installed cartridge. The technician should replace the toner first as it is the most likely and simplest component to check.

QUESTION 105

An administrator is setting up a conference room for an important board of directors meeting. The chief operating officer has asked the administrator to make sure a redundant internet connection is available. The office only has one ISP, and the conference room equipment is currently configured using Ethernet. Which of the following should the administrator set up in order to ensure redundancy?

- A. Wireless access point
- B. Near-field communication
- C. Hotspot
- D. Bluetooth

Answer: C

Explanation:

A hotspot provides a redundant internet connection using cellular data. This ensures connectivity for the meeting even if the primary ISP connection fails.

QUESTION 106

A SOHO user's network printer has been without power for the last few days. After turning the printer back on, the user cannot connect to it. Which of the following is the most probable cause?

- A. The printer has a static IP address.
- B. The printer has a dynamic IP address.
- C. The printer has an APIPA.
- D. The printer has a public IP address.

Answer: B

Explanation:

If the printer uses a dynamic IP address and has been without power, the DHCP lease may have expired, and the printer may have been assigned a new IP address. Devices attempting to connect using the old IP address will fail.

QUESTION 107

Which of the following best describes the concept of a DHCP lease?

- A. A definition of the scope of addresses to be assigned to a device on the network
- B. A reservation of an IP configuration for a device on the network
- C. A temporary assignment of an IP configuration to a device on the network
- D. A translation of network names to IP addresses for a device on the network

Answer: C

Explanation:

A DHCP lease is a temporary assignment of an IP address and other network configuration parameters (such as DNS and gateway) to a device. The lease is renewed periodically to maintain the assignment.

QUESTION 108

Which of the following cables are the most likely to be implemented using a punch down block? (Select two).

- A. Telephone
- B. Fiber
- C. HDMI
- D. Ethernet
- E. Coaxial
- F. USB

Answer: AD

Explanation:

Punch-down blocks are commonly used to terminate and manage cabling for telephone systems and Ethernet networks (e.g., Cat 5, Cat 6). These blocks allow for efficient organization and connection of wires.

QUESTION 109

A help desk technician is tasked with moving a user's computer to a makeshift office for renovations. Upon moving the computer, the technician notices the network card will not utilize anything beyond 10Mbps half-duplex. Which of the following is the most likely issue?

- A. The computer is connected with DSL.
- B. The computer is connected to an unmanaged switch.
- C. The computer is configured for NIC teaming.
- D. The computer is connected to a hub.

Answer: D

Explanation:

Hubs operate in half-duplex mode and are limited to low speeds like 10Mbps, making them the most likely cause for the network card's performance issue.

QUESTION 110

Which of the following internet connection types is most likely to be used in remote locations?

- A. Fiber
- B. Cable
- C. Satellite

- D. DSL
- E. Cellular

Answer: C

Explanation:

Satellite internet is most commonly used in remote areas where wired infrastructure (e.g., fiber or cable) is unavailable. It relies on satellite communication, making it suitable for isolated locations.

QUESTION 111

Which of the following DNS record types is used to direct email to a mail server?

- A. CNAME
- B. SRV
- C. MX
- D. SOA

Answer: C

Explanation:

An MX (Mail Exchange) record specifies the mail server responsible for receiving email for a domain.

QUESTION 112

Which of the following cable types can be used to transfer data and video?

- A. USB-C
- B. HDMI
- C. DisplayPort
- D. VGA

Answer: A

Explanation:

USB-C is a versatile connector capable of transmitting data, video, audio, and power. With standards like DisplayPort over USB-C or Thunderbolt 3/4, it can be used for external displays, file transfers, charging, and more -- all through one cable.

QUESTION 113

A recently installed printer is incorrectly aligning printed documents. Which of the following should the technician do first to fix this issue?

- A. Run the maintenance application.
- B. Clean the rollers
- C. Upgrade the firmware
- D. Reinstall the drivers

Answer: A

Explanation:

Most modern printers include a built-in maintenance application that can calibrate the print heads and correct alignment issues. Running this tool is the first step to address misalignment.

QUESTION 114

A user brings a laptop to work every morning, correctly seats it in the docking station and then opens the laptop to begin work with no issues. After the user left the laptop at home during a two-week vacation the laptop is no longer working. Upon returning to the office, the user reports that the keyboard and display are no longer working.

Which of the following should the technician ask the user to do first?

- A. Ensure the docking station is plugged in.
- B. Press and release the laptop power button.
- C. Plug the laptop in and let it charge overnight
- D. Connect the laptop directly to the network.

Answer: B

Explanation:

Reasoning: Many docking stations provide power and functionality only when the laptop is properly powered on. If the laptop was powered off (e.g., during the vacation), docking it will not automatically turn it on. The technician should first ensure the laptop is powered on by pressing the power button. This is a common troubleshooting step when laptops in docking stations appear non-functional.

QUESTION 115

A security team wants to implement compliance controls that only permits the installation of company- approved software on user laptops.

Which of the following should the IT department deploy?

- A. EDR
- B. VPN
- C. MDM
- D. SaaS

Answer: C

Explanation:

Mobile Device Management (MDM) allows IT departments to enforce compliance controls, such as restricting the installation of unapproved software, on laptops and mobile devices.

QUESTION 116

A user prints a spreadsheet in duplex mode. The spreadsheet is difficult to read because some of the columns spill onto the second side of the page.

Which of the following should the user do to prevent the issue but still print on both sides of the page?

- A. Turn off duplex printing.
- B. Try a smaller font size in the spreadsheet.
- C. Change the page orientation.
- D. Use a different print driver.

Answer: C

Explanation:

Changing the page orientation(e.g., from portrait to landscape) allows wider columns to fit on one side of the page. This maintains readability while continuing to use duplex printing.

QUESTION 117

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

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

Answer: B

Explanation:

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

QUESTION 118

A customer reports their tablet was recently dropped on the ground. The tablet has a small crack in one corner of the display, and it does not charge when plugged in. Which of the following should a technician do first?

- A. Perform a hard restart.
- B. Replace the battery
- C. Inspect the USB-C port for damage
- D. Run diagnostics on the digitizer

Answer: C

Explanation:

Physical damage from dropping a tablet may often affect ports or connectors. Before taking deeper diagnostic or replacement steps, it's important to visually inspect the USB-C charging port for damage or debris. If the port is damaged, charging issues can occur regardless of battery health.

QUESTION 119

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

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

Answer: C

Explanation:

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

QUESTION 120

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

- A. Switch

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

Answer: C

Explanation:

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

QUESTION 121

A user connects their laptop to a projector in a conference room. Once connected, the user reports the screen is smaller at the bottom than at the top. The user tries restarting the laptop and then disconnecting and reconnecting the cable to the projector. Which of the following should a technician do to resolve the issue?

- A. Replace the HDMI cable.
- B. Power cycle the projector.
- C. Adjust the keystone
- D. Increase the resolution.

Answer: C

Explanation:

A distorted image where the screen is not symmetrical (wider at the top or bottom) is typically due to keystone distortion. Adjusting the projector's keystone settings corrects this trapezoidal effect caused by an angled projection.

QUESTION 122

Which of the following cable types is the most suitable for delivering 10Gb speeds for distances over 328ft (100m) but under 1,312ft (400m)?

- A. Multimode fiber
- B. Single-mode fiber
- C. Cat 6a
- D. Cat 6

Answer: A

Explanation:

Multimode fiber is designed for relatively short to medium distances (up to 1,312 feet or 400 meters) while supporting high-speed data transfer (10Gbps and above). It uses LED light sources and is cost-effective for environments like data centers or within buildings. For the specified distance of over 328ft but under 1,312ft, multimode fiber is the most suitable option.

QUESTION 123

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

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

Answer: C

Explanation:

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

QUESTION 124

An SAS RAID array has severely degraded and gone offline. A systems administrator examines the syslog, and the point of failure is not obvious.

Which of the following techniques should the administrator use to identify the issue (Select two).

- A. Run a magnet over each drive.
- B. Check if one of the drives is not level
- C. Listen for clicking and grinding noises
- D. Check the OS logs
- E. Update the RAID controller firmware.
- F. Check the historical SMART data

Answer: CF

Explanation:

Clicking and grinding noises indicate mechanical drive failure. SMART data provides insights into the health and status of drives, helping identify failing components in the RAID array.

QUESTION 125

A technician is experimenting with network configurations and has connected two laptops to an unmanaged switch. The technician configured one of the laptops with a static IP address of 192.168.1.1 and the other with a static IP address of 192.168.2.2. The laptops are not communicating with each other.

Which of the following is the most likely explanation for this issue?

- A. The technician needs to use a hub instead of a switch.
- B. The wireless NICs are malfunctioning.
- C. PoE interferes with intersubnet communication.
- D. The laptops do not have access to a router.

Answer: D

QUESTION 126

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

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

Answer: B

Explanation:

SAS (Serial Attached SCSI) is a high-performance drive interface commonly found in enterprise

environments and servers due to its reliability and speed. While SATA is more common in consumer systems, SAS is specifically designed for mission-critical applications, offering features like full-duplex operation and compatibility with SATA drives.

QUESTION 127

A user is receiving many unsolicited emails. Which of the following controls can be configured to best reduce these types of emails?

- A. Load balancer
- B. Spam gateway
- C. Mail forwarding
- D. Proxy servers

Answer: B

Explanation:

A spam gateway filters unsolicited emails at the server level, significantly reducing spam before it reaches user inboxes.

QUESTION 128

A technician is troubleshooting a PoE phone that will not turn on. When a laptop is plugged directly into the switchport for the phone the technician sees a data link LED and activity. Which of the following tools should the technician use to verify PoE availability to the phone?

- A. Network tap
- B. Cable tester
- C. Loopback plug
- D. Toner probe

Answer: B

Explanation:

A cable tester capable of testing Power over Ethernet (PoE) functionality can verify whether the switchport is providing the required power to the phone. This tool measures both the presence of data and the voltage or wattage being provided through the Ethernet cable. This is the most effective way to confirm that PoE is available on the port.

QUESTION 129

A technician needs to select PC components with a minimal number of visible internal cables. Which of the following should the technician use?

- A. SATA drive connections
- B. Liquid cooling
- C. Modular power supply
- D. Wireless NIC

Answer: C

Explanation:

A modular power supply allows a technician to connect only the power cables that are needed, reducing clutter and improving airflow. This is ideal when aiming for a clean build with minimal visible internal cables.

QUESTION 130

A customer reports that a text-only document prints with unrecognizable characters. The print preview correctly displays the document.

Which of the following is the most likely cause of the issue?

- A. Outdated firmware
- B. Incorrect driver
- C. Bad toner cartridge
- D. Corrupted document file

Answer: B

QUESTION 131

A technician is installing a new high-end graphics card that uses a 12VHPWR connector. Which of the following is the maximum wattage supported by this power connector?

- A. 400W
- B. 160W
- C. 600W
- D. 700W

Answer: C

Explanation:

The 12VHPWR connector can supply up to 600 watts of power, designed for high-end graphics cards.

QUESTION 132

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

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

Answer: A

Explanation:

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

QUESTION 133

A user joins a conference call with a Bluetooth headset.

Which of the following has the user created?

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

Answer: B

Explanation:

A PAN is a network established between devices in close proximity, such as between a smartphone and a Bluetooth headset. Bluetooth technology is specifically designed for short-range communication, making it a type of PAN.

QUESTION 134

A help desk technician inspects a laptop keyboard because a single key has stopped working. The technician checks the keyboard for debris.

Which of the following actions should the technician do next to troubleshoot the issue cost-effectively?

- A. Replace the keyboard.
- B. Replace the key switch
- C. Replace the circuit board.
- D. Replace the keycap

Answer: D

Explanation:

If only one key is not functioning and debris has been checked, replacing the individual keycap is the most cost-effective next step. It's a simple, low-cost option before considering more extensive repairs like replacing the entire keyboard.

QUESTION 135

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

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

Answer: B

Explanation:

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

QUESTION 136

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

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

Which of the following will resolve this issue?

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

Answer: B

Explanation:

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

QUESTION 137

A technician receives a tablet that looks like it has a bulge inside. The bulge is pushing the screen away from the backplate. The tablet still turns on when it is plugged in, but the screen looks damaged and turns off when unplugged.

Which of the following is the most likely cause of this issue?

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

Answer: C

Explanation:

A bulging tablet casing is a classic sign of a swollen lithium-ion battery, often caused by age, overheating, or overcharging. This is a dangerous condition, as swollen batteries can rupture or catch fire. It also explains why the tablet only works when plugged in -- the battery is no longer holding a charge.

QUESTION 138

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

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

Answer: B

Explanation:

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

QUESTION 139

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

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

Answer: D

Explanation:

Dynamic Host Configuration Protocol (DHCP) is a network service used to automatically assign IP addresses and other network configuration details (such as subnet masks and default

gateways) to devices on an enterprise-wide network.

QUESTION 140

A technician is replacing a failed power supply in a ten-year-old computer. When installing the customer-provided power supply, the technician discovers the ATX connector would not plug into the motherboard. The customer wants a cost-effective solution.

Which of the following should the technician do next?

- A. Adjust the input voltage.
- B. Install a modular power supply.
- C. Rebuild the failed power supply.
- D. Use a 20-pin to 24-pin adapter.

Answer: D

Explanation:

Older motherboards use 20-pin connectors, while newer power supplies use 24-pin connectors. An adapter resolves the compatibility issue cost-effectively.

QUESTION 141

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

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

Answer: A

Explanation:

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

QUESTION 142

A company wants to save printing costs by restricting network printer use. The company implements a solution that requires employees to authenticate to the printer to release print jobs.

Which of the following has the company implemented?

- A. Access control list
- B. Audit logging
- C. Badging
- D. Print server

Answer: C

Explanation:

Badging is a form of authentication that requires employees to use a badge or ID card to release print jobs.

This solution reduces unnecessary printing by ensuring only authorized users print.

QUESTION 143

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

Which of the following should the technician implement?

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

Answer: A

Explanation:

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

QUESTION 144

A customer reports slow network speeds. Which of the following components is most likely failing?

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

Answer: B

Explanation:

A Network Interface Card (NIC) is the hardware responsible for network connectivity. If the NIC is failing or underperforming (e.g., due to a bad driver, hardware fault, or misconfiguration), it can cause slow or unstable network speeds.

QUESTION 145

Which of the following printing initiatives would be best to accomplish environmentally friendly objectives?

- A. Requiring user authentication for printing
- B. Locking down printing to only certain individuals
- C. Modifying duplex settings to double-sided
- D. Changing the print quality settings to best

Answer: C

Explanation:

Modifying duplex settings to double-sided:

Printing on both sides of the paper (duplex printing) reduces paper usage, making it one of the most effective environmentally friendly printing initiatives.

It directly minimizes waste and supports sustainability goals in the workplace.

QUESTION 146

Which of the following best represents the purpose of NFC?

- A. Wired connections between several devices
- B. Short-distance wireless connections between two devices

- C. Wireless connections between multiple devices at once
- D. Direct connection of two computers for file sharing

Answer: B

Explanation:

NFC (Near-Field Communication) is a subset of RFID technology designed for very short-range wireless communication, typically within a few centimeters. It is primarily used for contactless transactions, like mobile payments, and can also support peer-to-peer data exchanges. NFC operates at 13.56 MHz and enables devices to communicate when placed near each other.

QUESTION 147

A user is unable to access secure applications on their tablet when working from home a couple days per week, but the applications work when in the office. Which of the following services most likely needs to be reconfigured to allow for remote work?

- A. Global Positioning System
- B. Mobile device management
- C. Wi-Fi Protected Access
- D. Near-field communication

Answer: B

Explanation:

Mobile Device Management (MDM) software often controls access to corporate resources based on location, network, or VPN status. If the MDM is not configured to allow access from outside the office or via home networks, the apps may be blocked. This is the most probable cause if apps work only on-premises.

QUESTION 148

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

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

Answer: C

Explanation:

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

QUESTION 149

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

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

Answer: B

Explanation:

LC is a type of fiber optic connector commonly used in optical networking cables. It is small, compact, and widely used for high-speed data transfer over fiber optic networks. LC connectors are specifically designed for fiber optic cables, making them the correct answer.

QUESTION 150

A technician needs to troubleshoot a user's smartphone that will not connect to its wireless provider's service.

Which of the following should the technician check first?

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

Answer: C

QUESTION 151

A technician wants to upgrade a computer to a new Windows version. The Windows Upgrade Advisor states that the computer is not compatible with the new Windows version due to a lack of TPM 2.0 support.

Which of the following should the technician do next?

- A. Enable the module in the UEFI BIOS.
- B. Install an HSM in the computer.
- C. Perform a clean Install of the new Windows version.
- D. Implement BitLocker on the computer.

Answer: A

Explanation:

TPM 2.0 (Trusted Platform Module) is often disabled by default in the UEFI BIOS. Enabling it is necessary to meet the requirements for certain Windows installations, including Windows 11.

QUESTION 152

A technician is troubleshooting a desktop PC that is plugged into a UPS. The PC loses the system date/time after every power outage.

Which of the following should the technician do to resolve the issue? (Select two).

- A. Run a BIOS update.
- B. Swap out the RAM.
- C. Disable NTP in the OS.
- D. Repair the backup power source.
- E. Replace the CMOS battery
- F. Install a surge protector.

Answer: DE

Explanation:

The system date/time is maintained by the CMOS battery when the PC is powered off. If this battery fails, time resets will occur. Additionally, since the system is connected to a UPS, ensuring the UPS is functioning correctly (i.e., the backup power source) is essential.

QUESTION 153

A customer reports a problem connecting to network resources. After asking open-ended questions, the technician determines the issue likely exists on the remote server. Which of the following should the technician do next?

- A. Document the findings.
- B. Test the theory
- C. Gather information
- D. Establish a plan of action

Answer: B

Explanation:

After determining the issue is likely on the remote server, the technician should test the theory to confirm the root cause before proceeding.

QUESTION 154

Which of the following is used primarily for archiving data?

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

Answer: C

Explanation:

A Storage Area Network (SAN) is primarily used for data archiving and large-scale storage. SANs provide high-speed, block-level storage for enterprise environments.

QUESTION 155

An IT specialist compares Bluetooth and NFC technologies for mobile device connectivity. Which of the following statements accurately describes a key difference between the two?

- A. NFC is faster than Bluetooth when transferring large files between devices.
- B. NFC consumes more power than Bluetooth, making it less suitable for devices in which battery conservation is crucial.
- C. NFC requires pairing with the receiving host, whereas Bluetooth just needs the available connection.
- D. NFC works best within a few centimeters, but Bluetooth can connect devices that are up to 32ft (10m) apart.

Answer: D

Explanation:

NFC (Near-Field Communication) operates at very short ranges -- usually less than 4cm, and is ideal for quick, secure transactions like contactless payments. Bluetooth supports longer ranges (up to 10 meters or 32 feet) and is suited for ongoing connections like wireless headsets or file transfers.

QUESTION 156

Each time a user tries to print, the paper becomes stuck at the last stage of the print job and the

user has to poll me paper out of the printer.
Which of the following is me most likely cause?

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

Answer: A

Explanation:

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

QUESTION 157

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

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

Answer: C

Explanation:

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

QUESTION 158

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

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

Answer: A

Explanation:

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

QUESTION 159

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

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

Answer: C

Explanation:

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

QUESTION 160
SIMULATION 1

A customer has contacted you about building two new desktops. The first desktop will be a gaming workstation. The customer requirements include:

- Playing the newest games at a high frame rate
- Fast game load times
- Enough storage to have several games installed at once
- High-end audio
- No concern about cost
- Running the current Windows OS

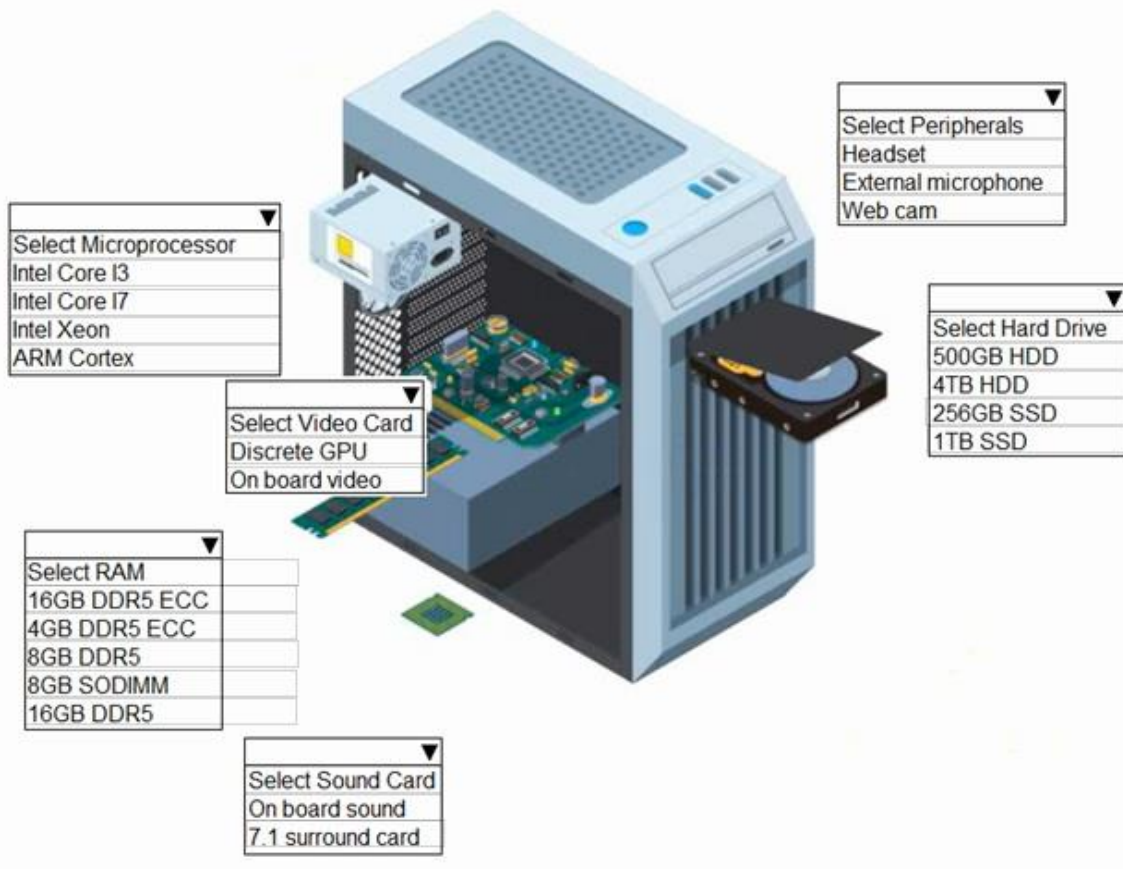
The second workstation will be a family workstation. The requirements include:

- Capability for word processing, videoconferencing, and basic web surfing
- Minimal cost, as long as it meets the requirements
- Running the current Windows OS

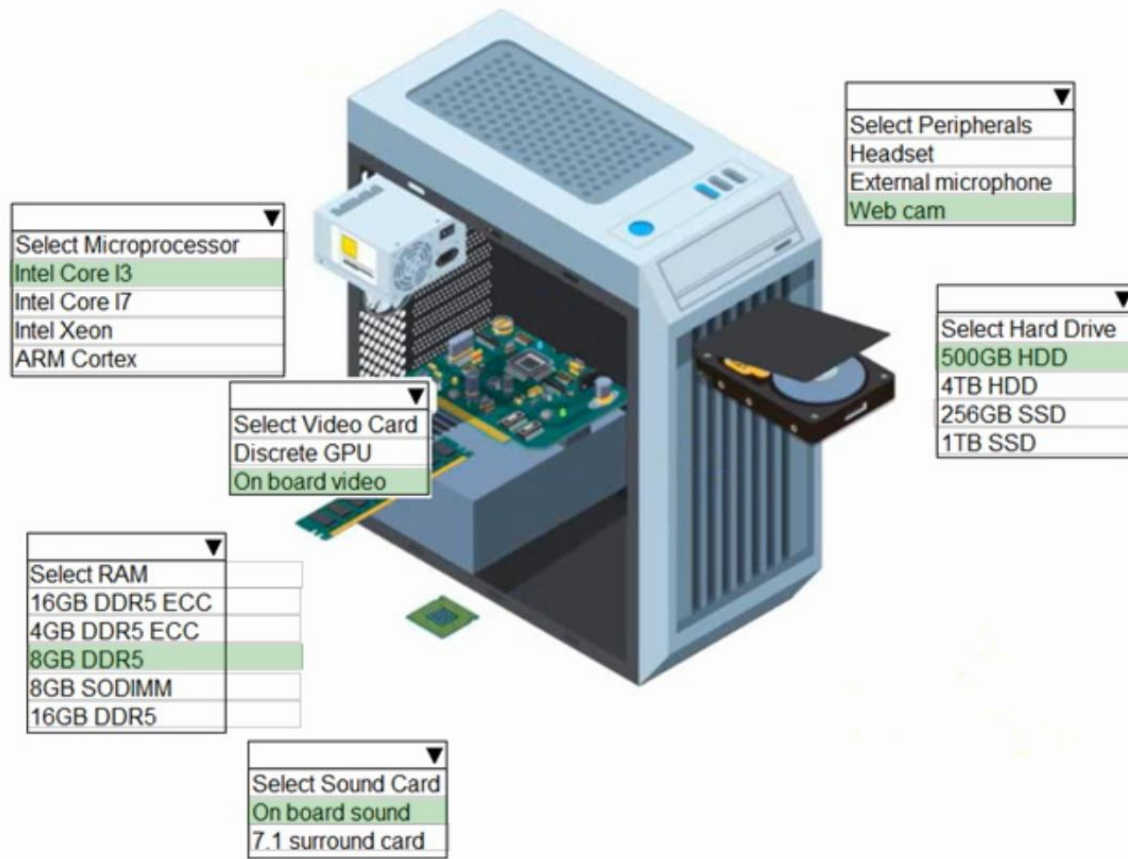
INSTRUCTIONS

Use the drop-down menus to select the appropriate component for each category, based on the above requirements.

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



Answer:



Explanation:

i3

On board video (cheaper than discrete)

Webcam (they usually have a built in mic, so no need for headset or external mic)

500GBHDD (less storage + HDD instead of SSD is cheaper)

8GB DDR5 (not sure because 4GB is incredibly low for today's standards)

On Board Sound

QUESTION 161 SIMULATION 2

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

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

INSTRUCTIONS

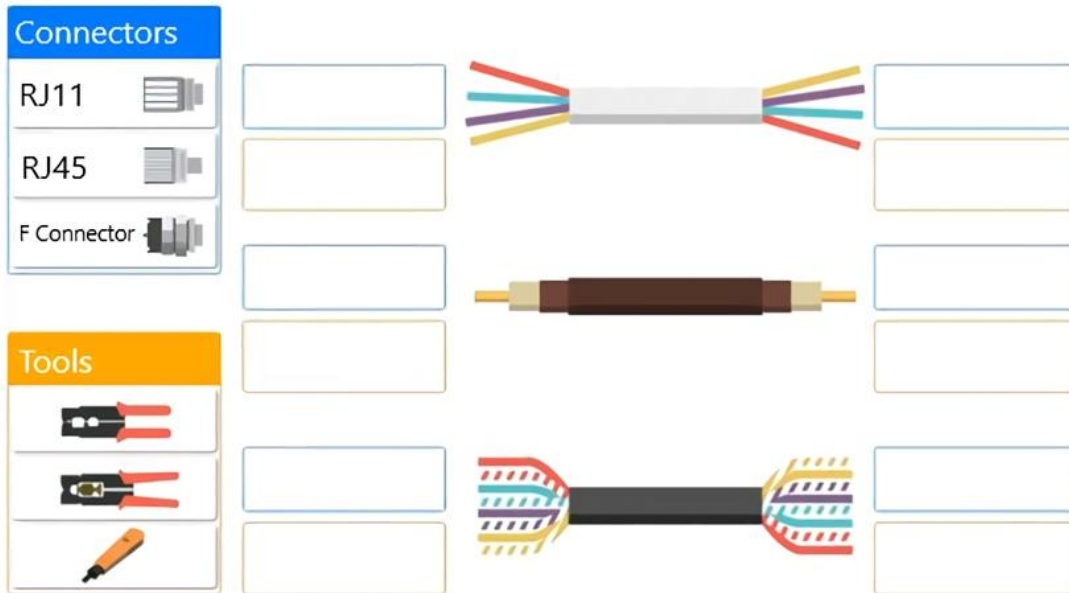
Use the appropriate cables. cable ends, tools and equipment to configure the network and connect an components accordingly.

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

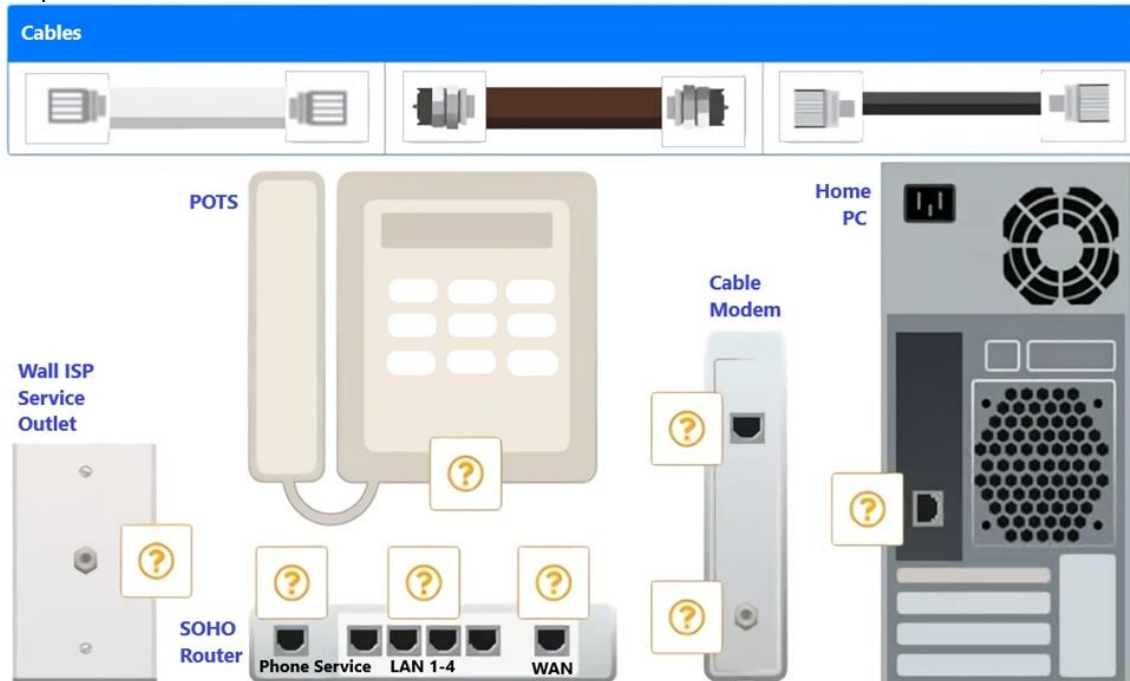
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

Step 1

SOHO Starter Kit

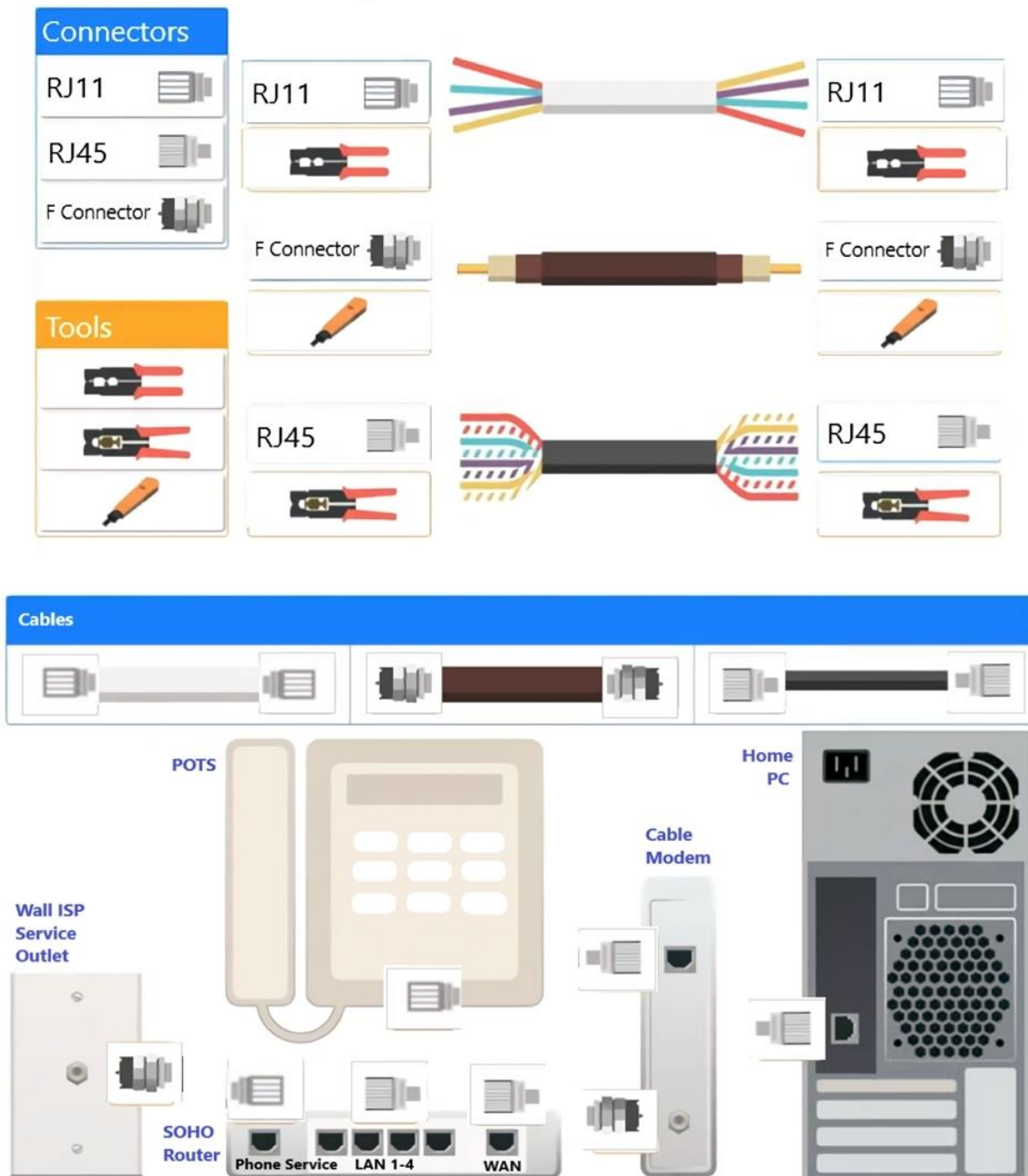


Step 2



Answer:

SOHO Starter Kit



QUESTION 162 SIMULATION 3

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.

Library 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:


Passphrase:

Confirmed Passphrase:

Laura's House

 Wireless Network Name: **Default**
Security Mode: **Open**
Wireless Channel: **11**

 Wireless Network Name: **MyWi**
Security Mode: **WEP**
Wireless Channel: **6**

 Wireless Network Name: **PatsWiFi**
Security Mode: **WEP**
Wireless Channel: **11**

Laura's Wireless Configuration

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

Wireless Network Settings

Enable Wireless: ☐

Wireless Network Name: (Also called the SSID)

Wireless Channel:

6

1

2

3

4

5

6

7

8

9

10

11

Disable SSID Broadcast: ☐

802.11g Only Mode: ☐

Wireless Security Mode

Security Mode:

Disable Wireless Security (not recommended)

Disable Wireless Security (not recommended)


Disable Wireless Security (not recommended)


Enable WEP Wireless Security (basic)


Enable WPA Wireless Security (enhanced)

Enable WPA2 Wireless Security (enhanced)

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**

Turn MAC Filtering ON: ☐

Allow the following MAC Addresses

Allow the following MAC Addresses

Disallow the following MAC Addresses


☐


☐


☐


☐

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:

Answer:

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:

CompTIA

Laura's Wireless Configuration

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

Turn MAC Filtering ON: ☐

<input type="checkbox"/>	00:0A:BF:03:C4:54
<input type="checkbox"/>	09:2C:D0:22:3F:11
<input type="checkbox"/>	
<input type="checkbox"/>	

Laura's Wireless Configuration

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

Please enter the same password into both boxes for confirmation.

Password:

Verify Password:

QUESTION 163
SIMULATION 4

A user reports poor performance on the application server.

INSTRUCTIONS

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

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

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



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

Server 1 ✕

Status	Name	State	Size	Media	Speed	Failure predicted
✓	Physical disk 1:2	Online	4TB	HDD	15k rpm	Yes
✓	Physical disk 1:3	Online	4TB	HDD	15k rpm	No
✓	Physical disk 1:4	Online	4TB	HDD	15k rpm	No
✓	Physical disk 1:5	Online	4TB	HDD	15k rpm	No

Server 2 ✕

Status	Name	State	Size	Media	Speed	Failure predicted
✓	Physical disk 1:2	Online	2TB	HDD	7200rpm	No
✓	Physical disk 1:3	Online	2TB	HDD	7200rpm	No
✓	Physical disk 1:4	Online	2TB	HDD	7200rpm	No
✗	Physical disk 1:5	Offline	2TB	HDD	7200rpm	Failed

Server 1, Drive bay 2



Size	Interface	Rotational speed
4TB v	HDD	15k rpm

Server 1, Drive bay 3



Size	Interface	Rotational speed
4TB v	HDD	15k rpm

Server 1, Drive bay 4



Size	Interface	Rotational speed
4TB v	HDD	15k rpm

Server 1, Drive bay 5



Size	Interface	Rotational speed
4TB v	HDD	15k rpm

Server 2, Drive bay 2
✕



Size	Interface	Rotational speed
2TB v	HDD	7200rpm
8TB	SAS	5400rpm
4TB	SATA	7200rpm
2TB	SATA	SSD

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

Size	Interface	Rotational speed
1TB	SAS	10k rpm
4TB	SAS	15k rpm
4TB	SAS	10k rpm
4TB	SATA	SSD

Server 2, Drive bay 3
✕



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

Answer:

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

- To minimize performance degradation, the replacement drive should be:
- SAS HDD with the same specifications (64KB stripe size, no read-ahead, and write-back policy).
- Matching the configuration exactly ensures seamless integration and optimizes recovery speed in the RAID-5 array.

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

QUESTION 164
SIMULATUION 5

A technician is diagnosing several device issues reported by employees.

INSTRUCTIONS

Click on each device to review the issue. Then select the appropriate issue and solution from the drop-down menu. Each option may be used more than once.

				
	<input type="text" value="Select an issue"/>	<input type="text" value="Select an issue"/>	<input type="text" value="Select an issue"/>	
	<input type="text" value="Select a solution"/>	<input type="text" value="Select a solution"/>	<input type="text" value="Select a solution"/>	
<input type="text" value="Select an issue"/>			<input type="text" value="Select an issue"/>	<input type="text" value="Select a solution"/>
<input type="text" value="Select a solution"/>	<input type="text" value="Select an issue"/>	<input type="text" value="Select an issue"/>	<input type="text" value="Select a solution"/>	
		<input type="text" value="Select a solution"/>		
<input type="text" value="Select an issue"/>		<input type="text" value="Select a solution"/>	<input type="text" value="Select an issue"/>	<input type="text" value="Select a solution"/>
<input type="text" value="Select a solution"/>			<input type="text" value="Select a solution"/>	



Answer:



QUESTION 165 SIMULATION 6

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

INSTRUCTIONS

Part1

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

Part 2

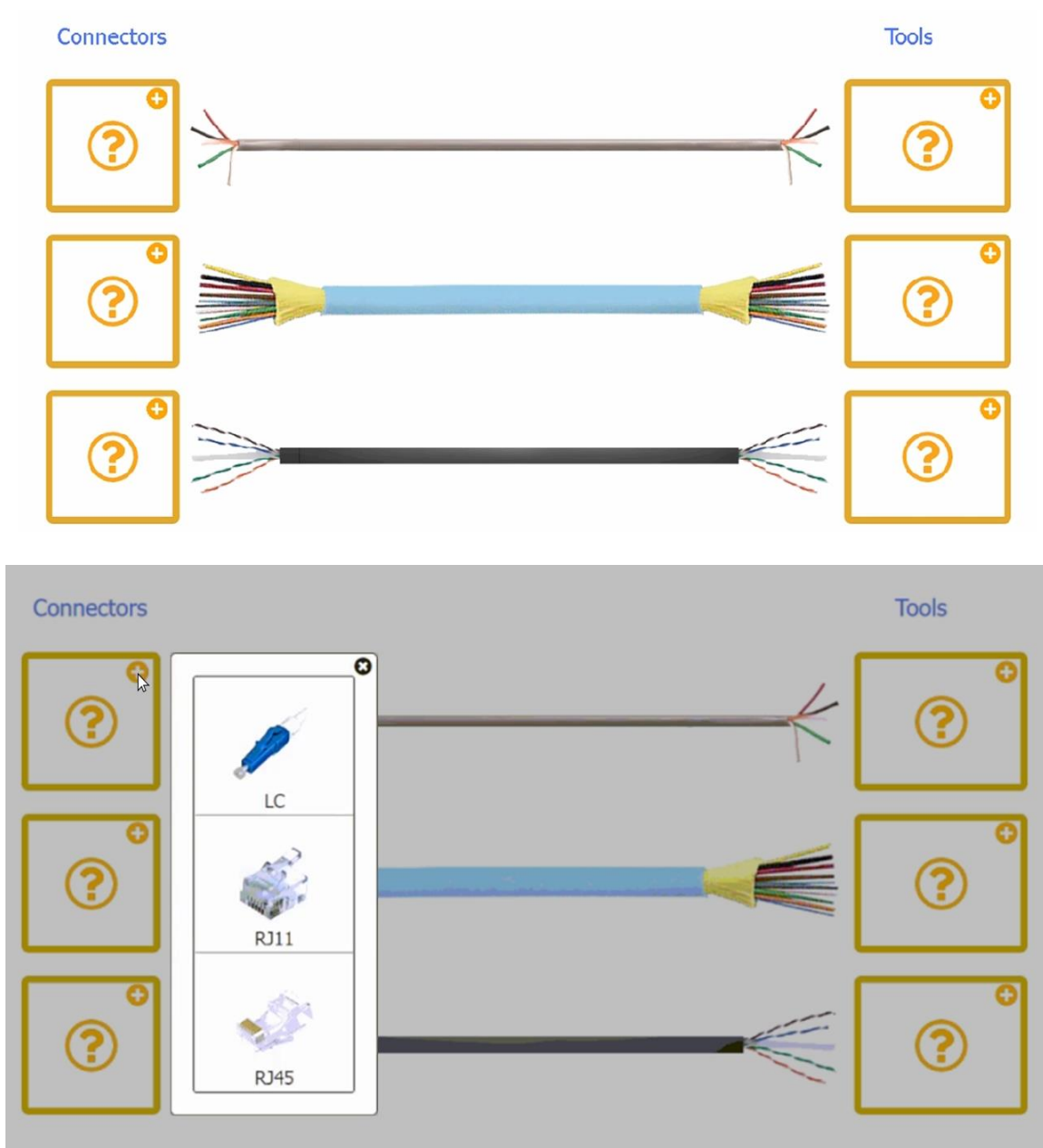
An access point was moved and no longer has connectivity. Connect the access point, patch panel, and switch by clicking the (+) to select the appropriate cable end for each corresponding location to create a link.

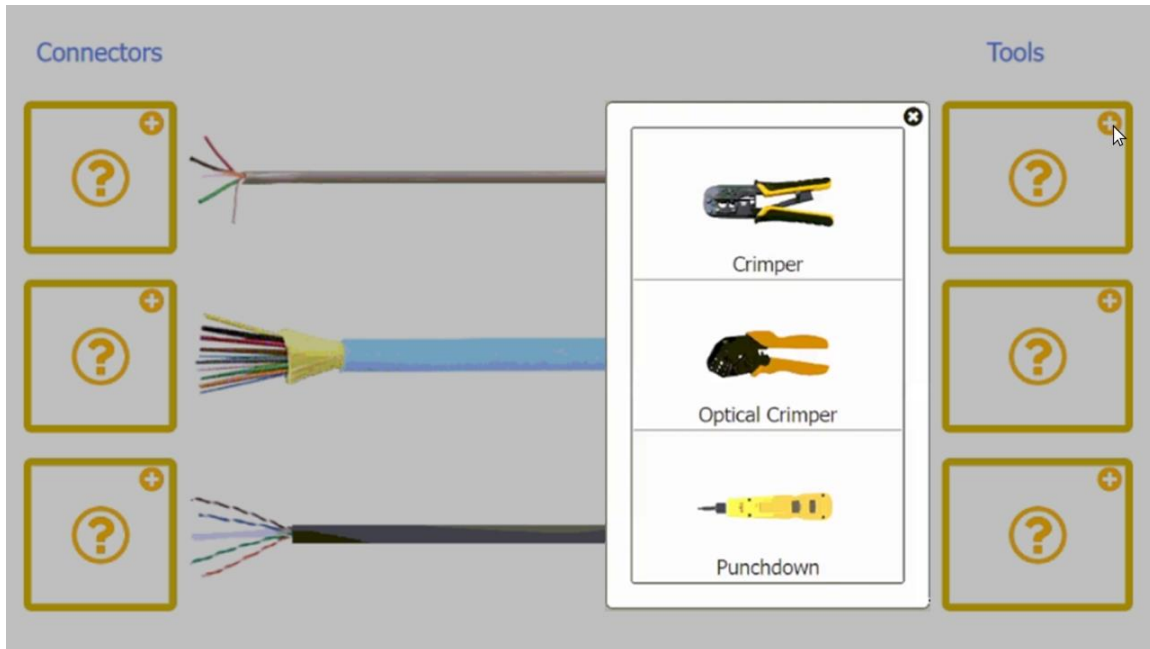
The link will be visible after making the second selection of each pair.

Cable ends may be used multiple times, and all placeholders will be filled.

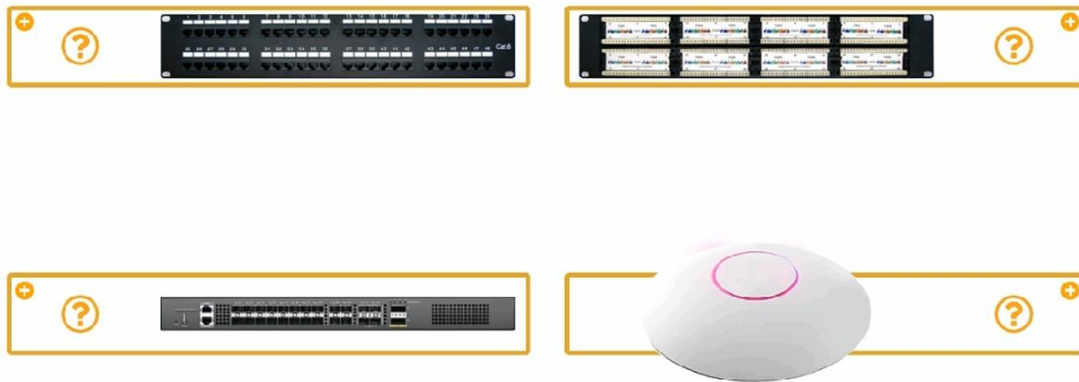
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

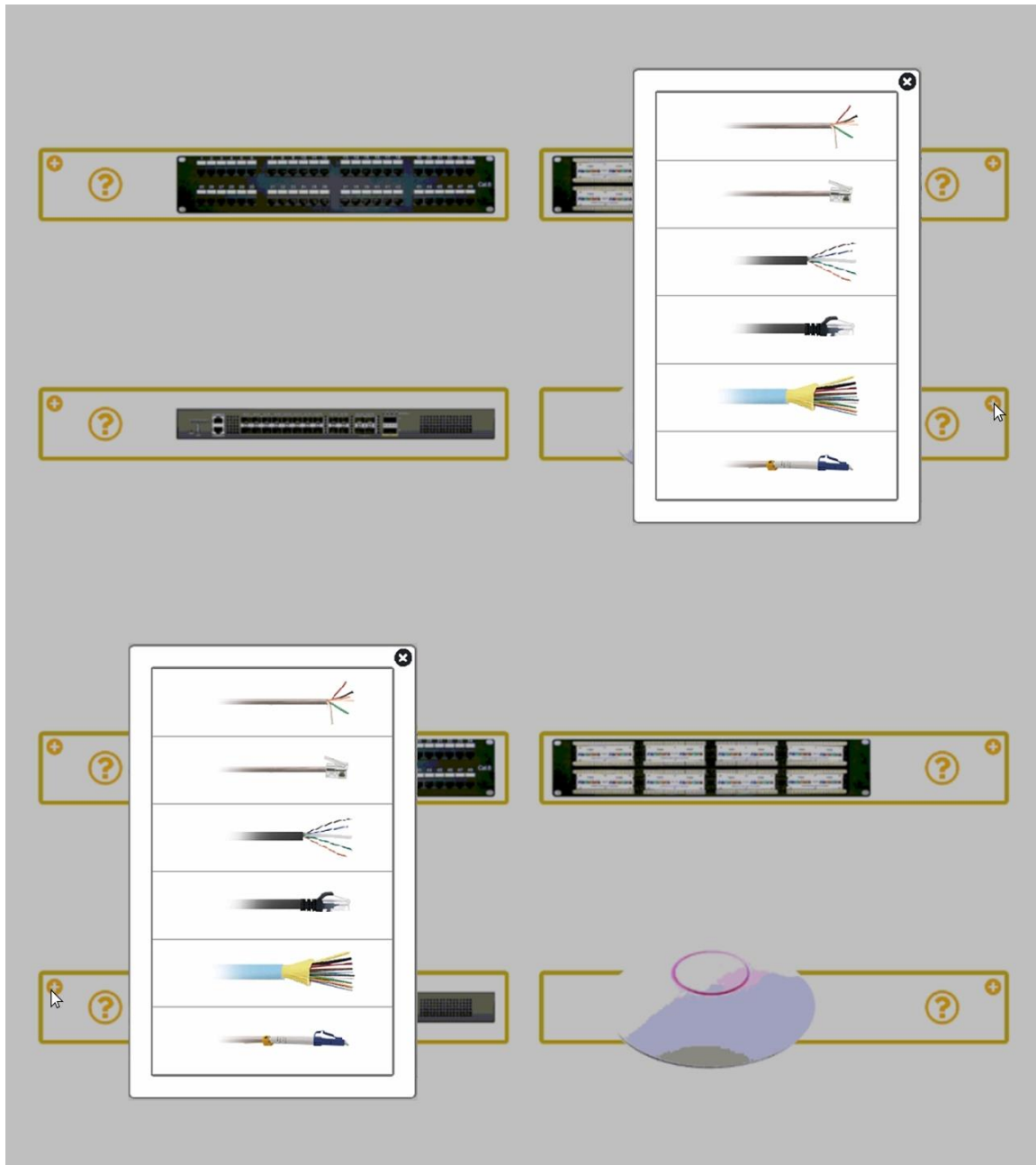
Part 1





Part 2





Answer:

Part 1 is RJ11, LC and RJ45
Part 2 is all RJ45

QUESTION 166 **SIMULATION 7**

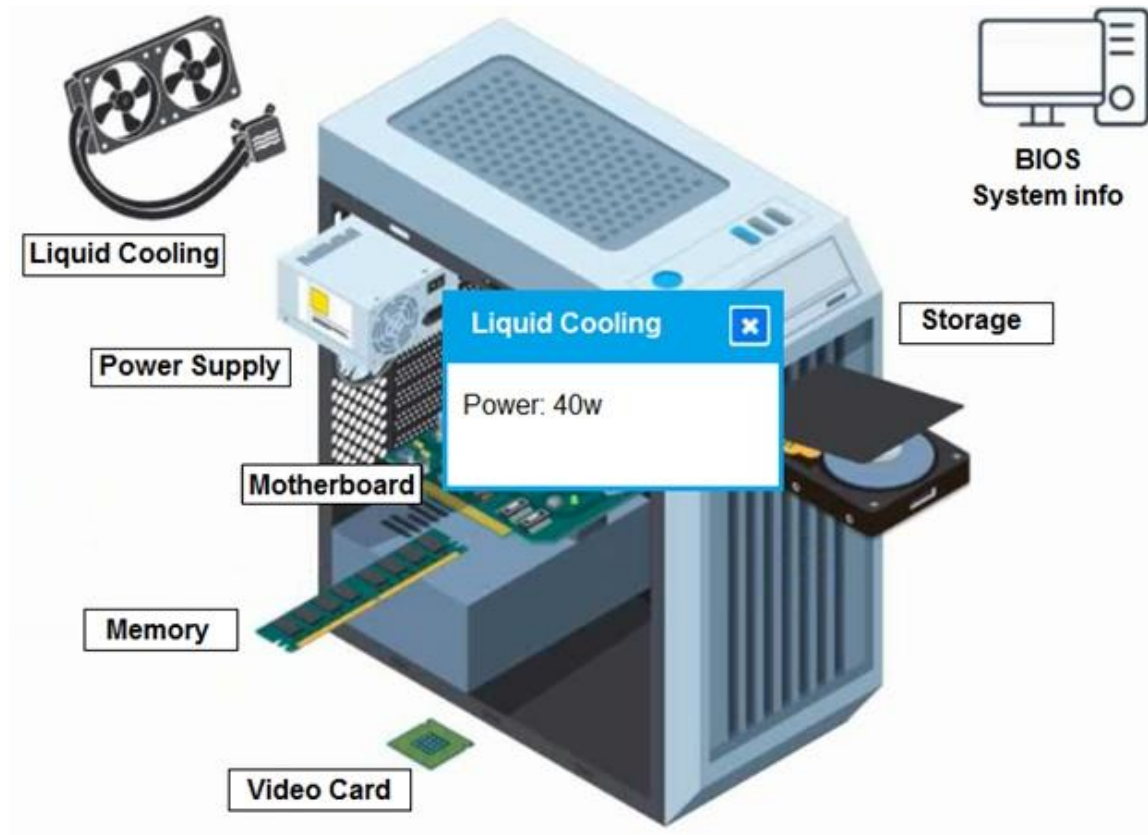
A customer built a computer for gaming, sourcing individual components and then assembling the system. The OS starts up, but within a few minutes the machine locks up. The customer brought the computer to a technician to diagnose the issue.

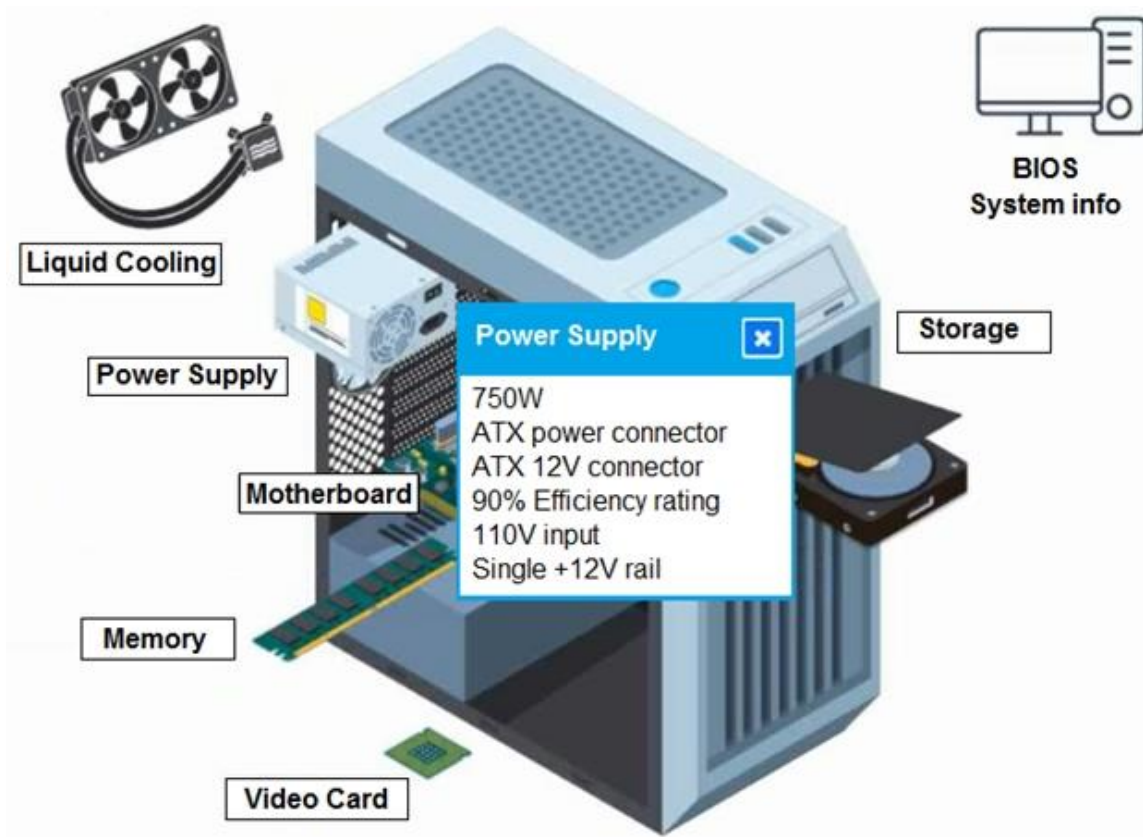
INSTRUCTIONS

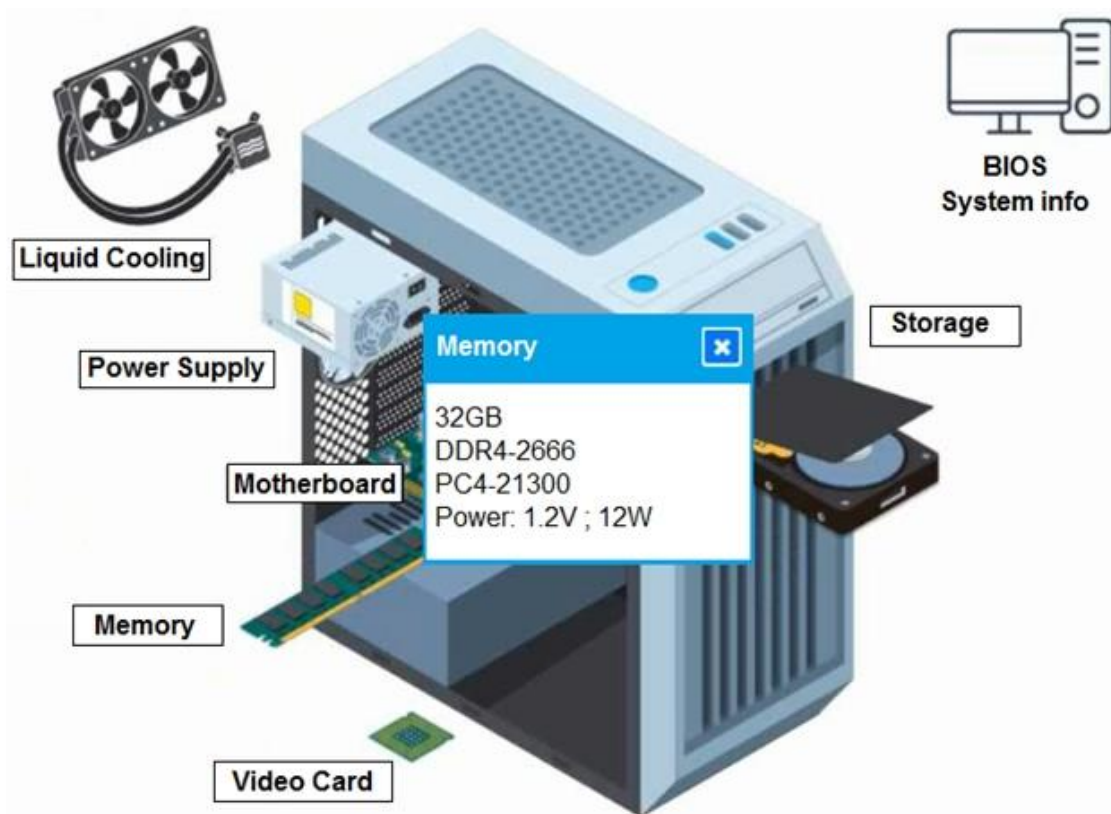
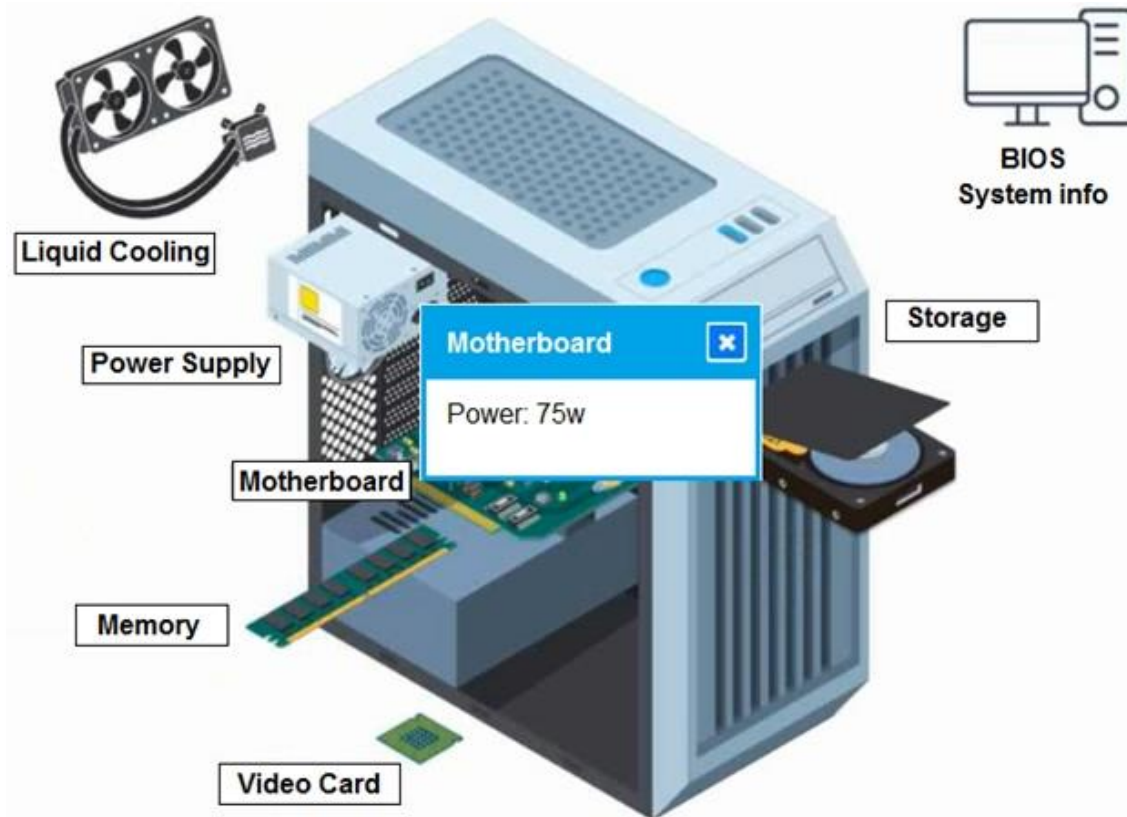
Click on each component to view the specification.

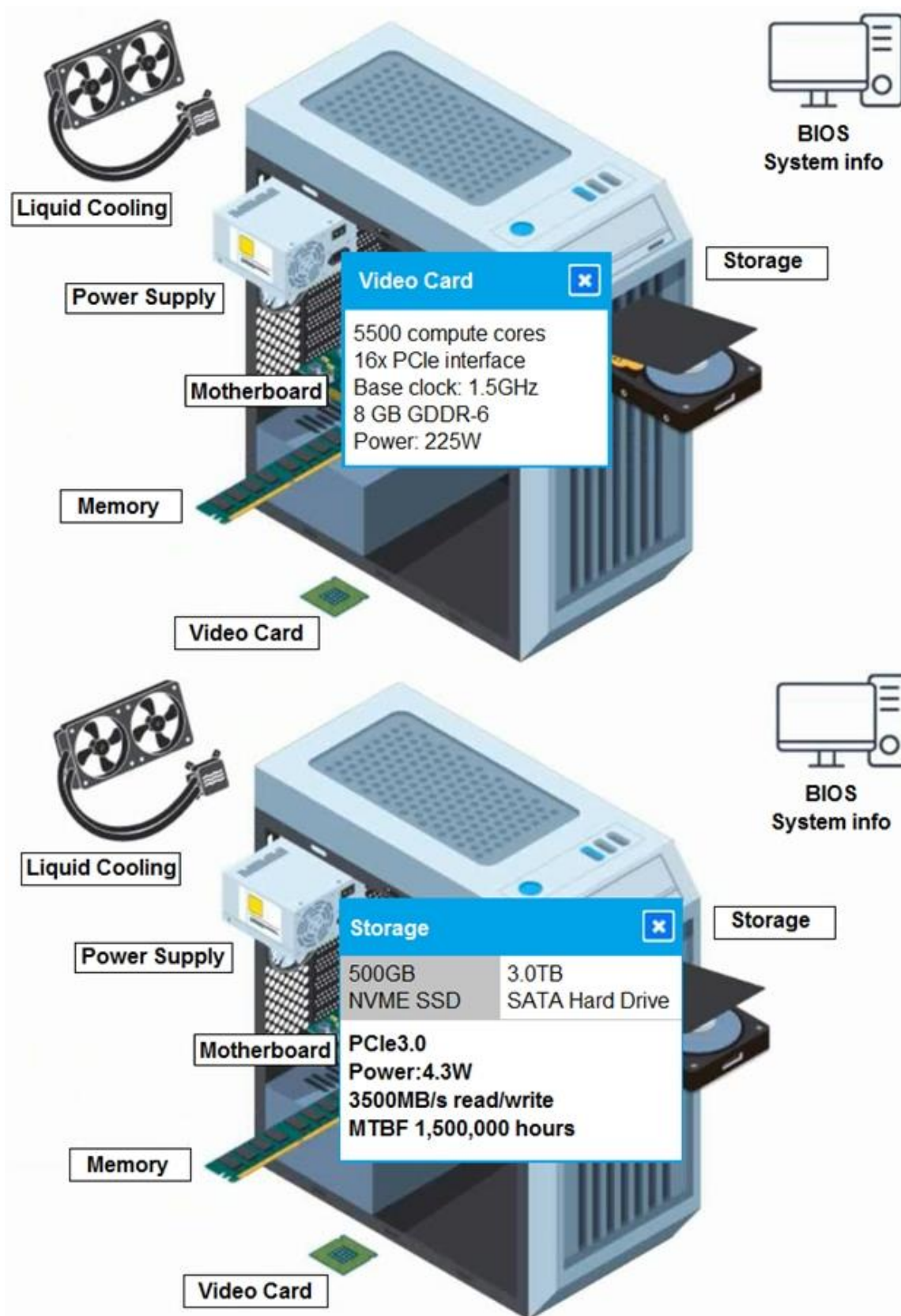
Select the appropriate cause and resolution for the issue.

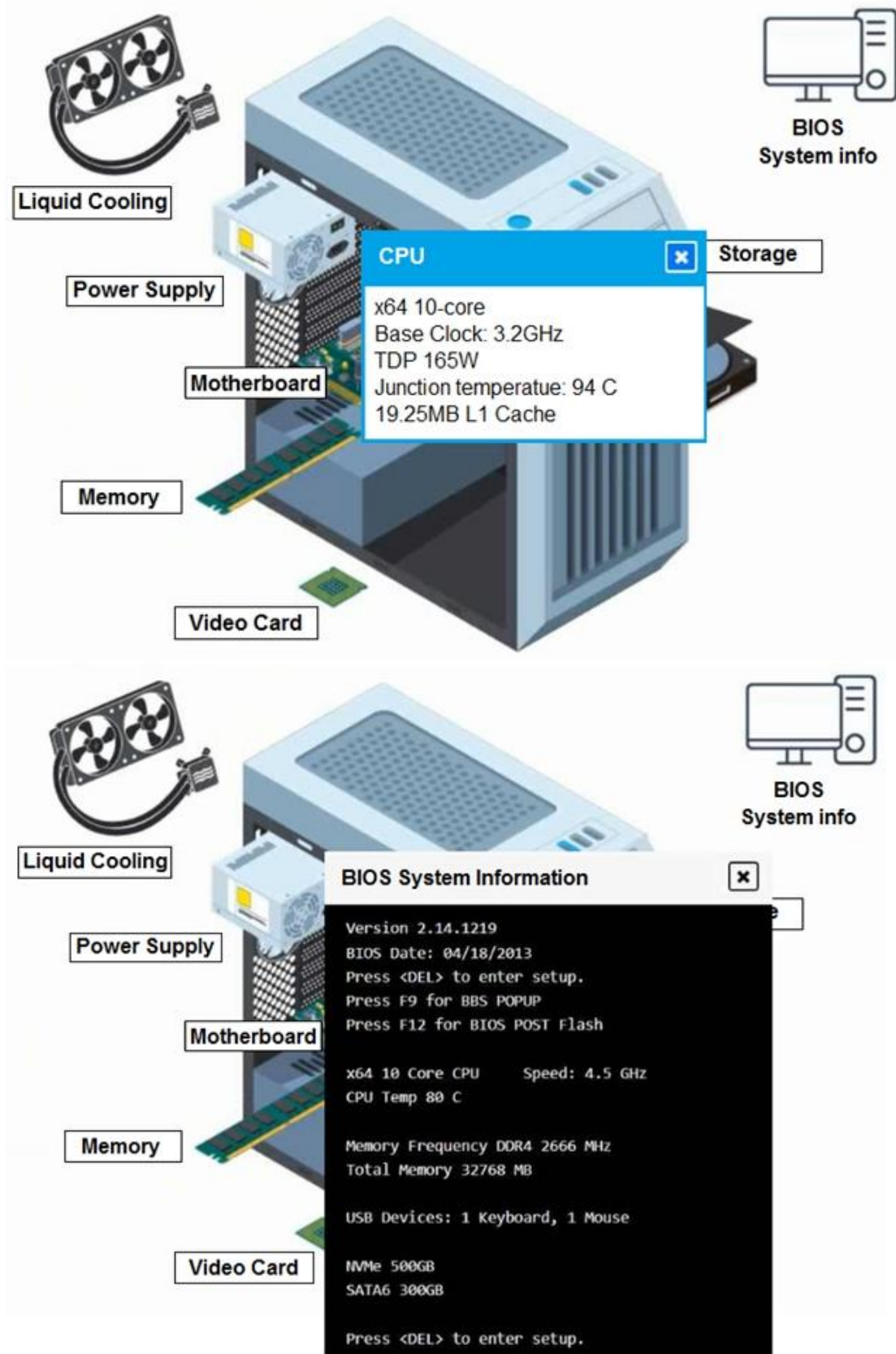
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

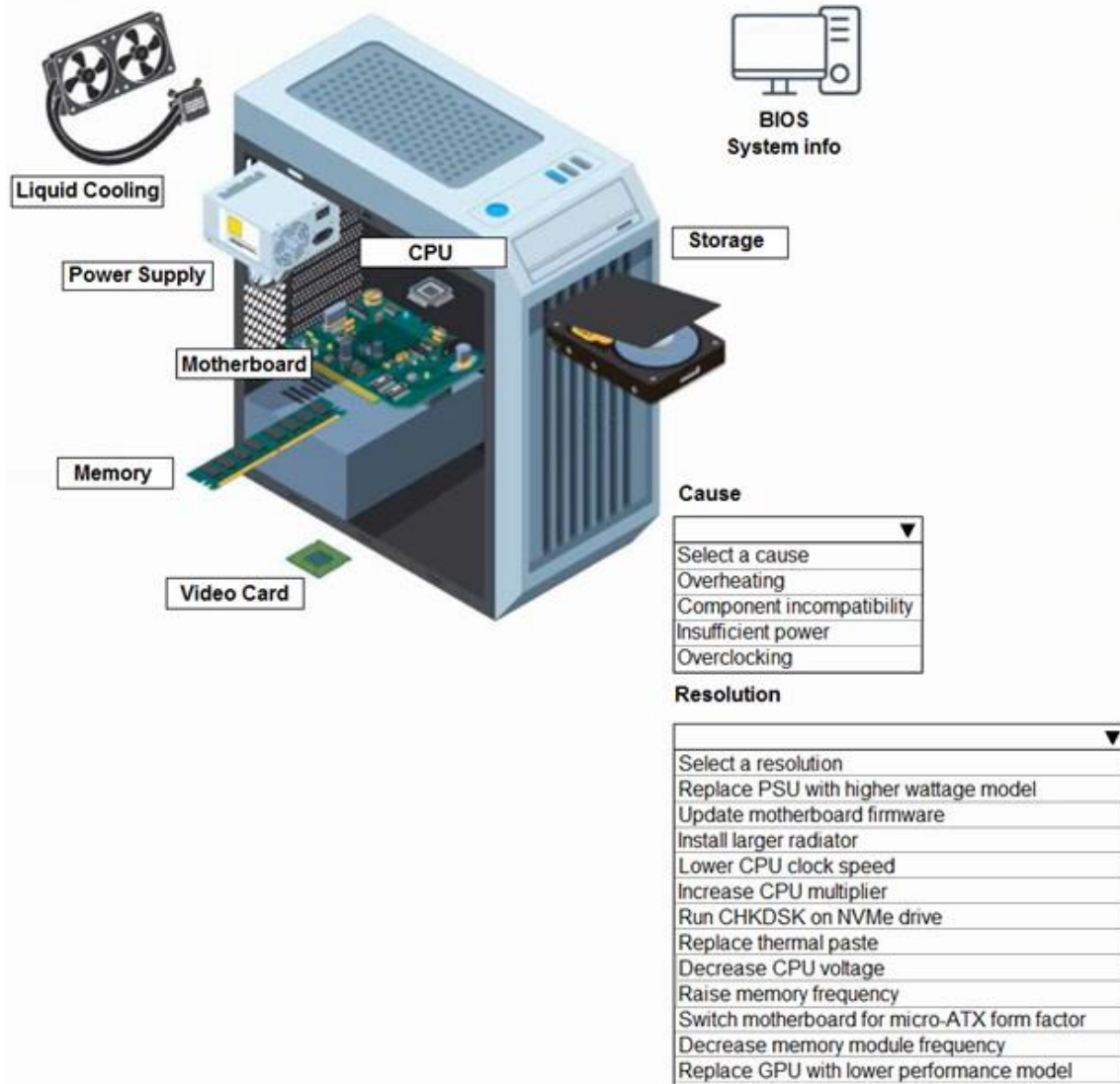




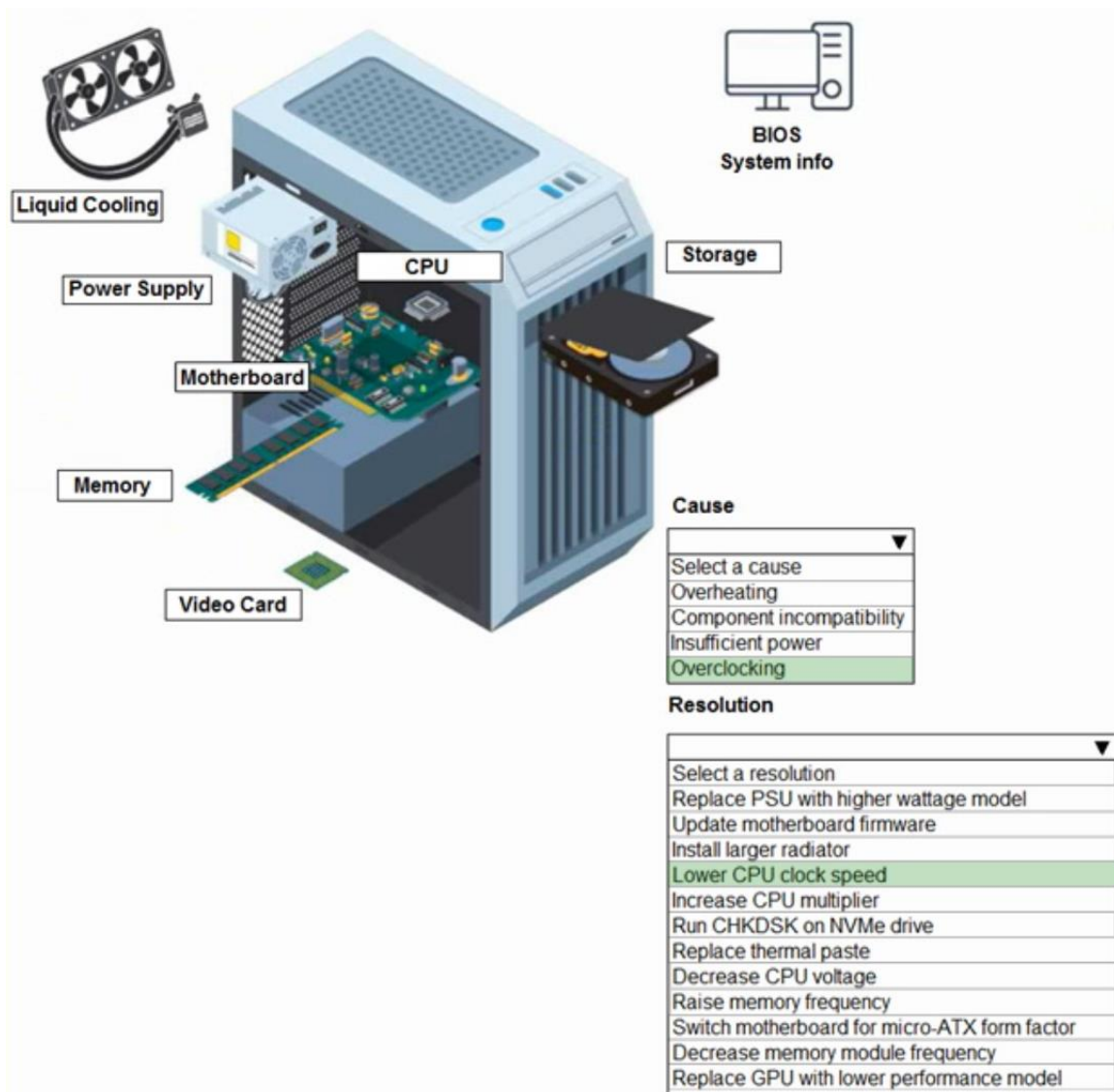








Answer:



Explanation:

Overclocking too much can cause freezes, and this is a gaming computer so the user probably took it too far.

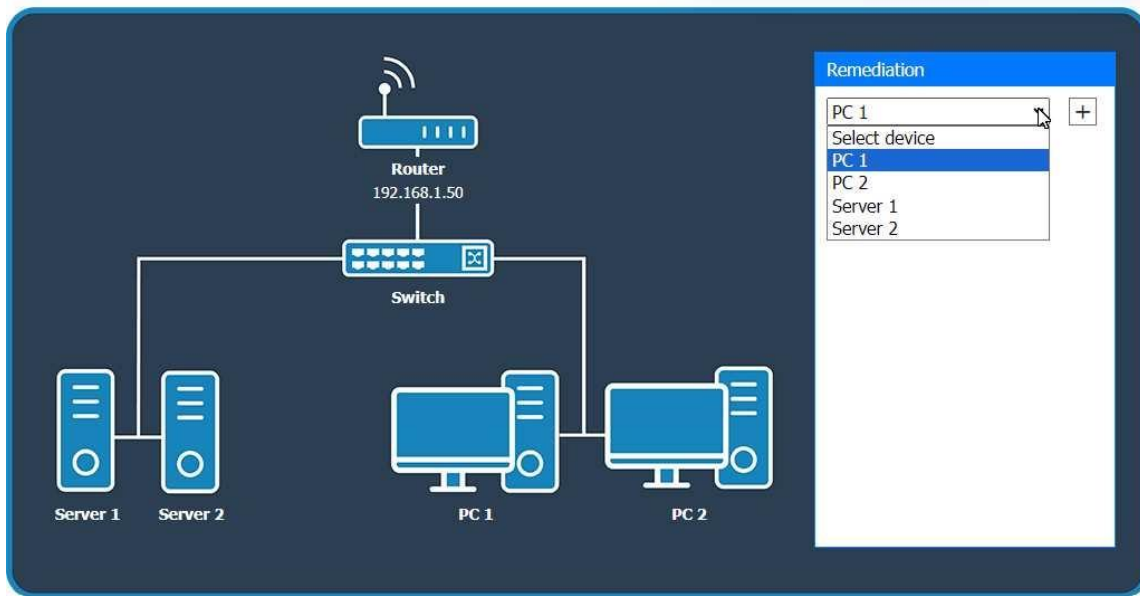
<http://blog.logicalincrements.com/2018/12/4-troubleshooting-tips-overclocking-pc/>

QUESTION 167 SIMULATION 8

A third-party contractor recently installed a new switch, router, and cabling for a small corporate office. After the installation, users started experiencing issues connecting to resources over the network.

INSTRUCTIONS

Click on each PC and server to review outputs. From the remediation section on the right, select an issue and solution for each device.



PC 1 [X]

Command terminal | **IPv4 properties**

Internet protocol version 4 (TCP/IPv4) properties

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

☐ Obtain an IP address automatically

☐ Use the following IP address:—

IP address: 192.168.1.1

Subnet mask: 255.255.255.0

Default gateway: 192.168.1.50

☐ Obtain DNS server address automatically

☐ Use the following DNS server addresses:—

Preferred DNS server: 192.168.1.1

Alternate DNS server: 192.168.1.50

☐ Validate settings upon exit

Advanced...

PC 1

Command terminal IPv4 properties

```
ipconfig /all

Windows IP Configuration

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

Ethernet adapter Ethernet 1:

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

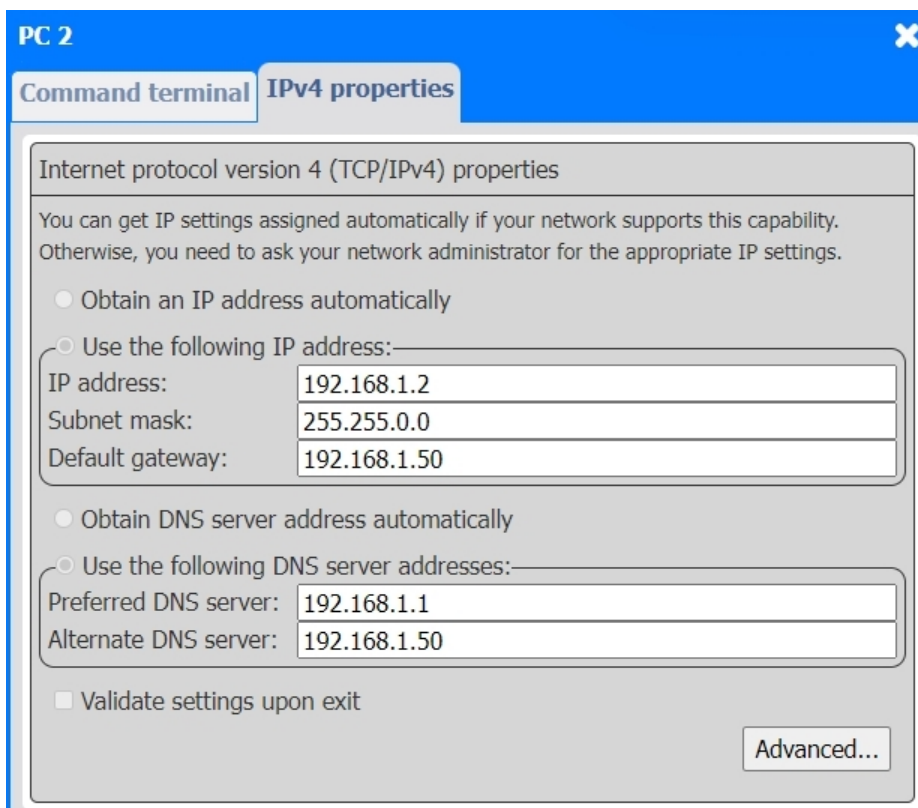
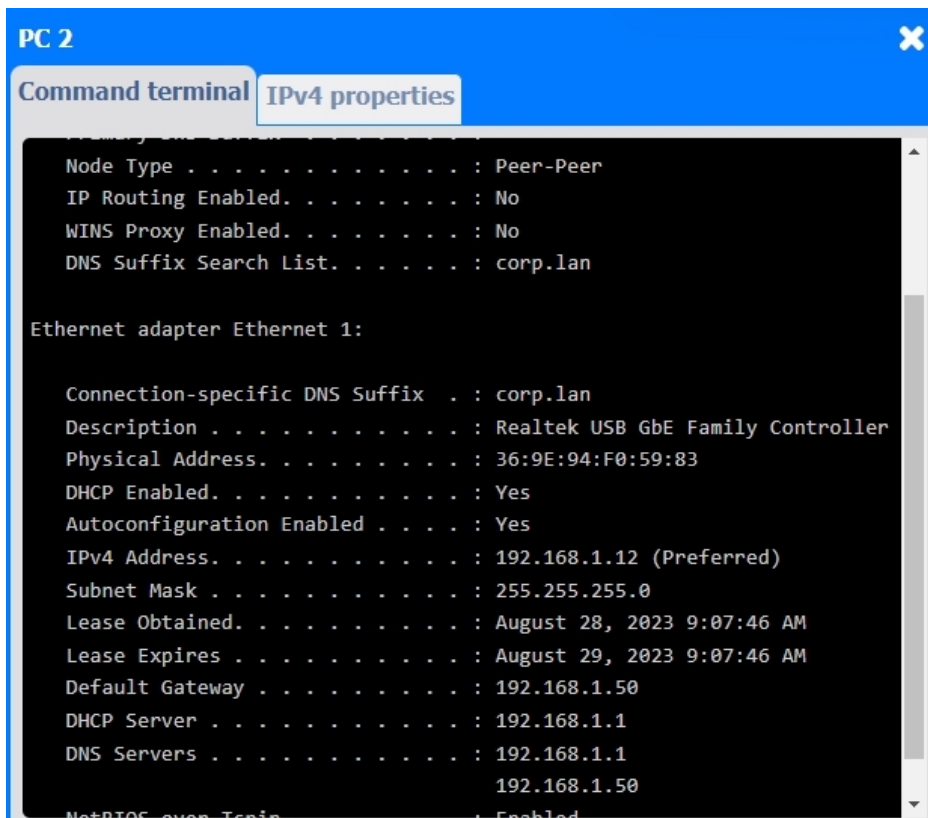
PC 1

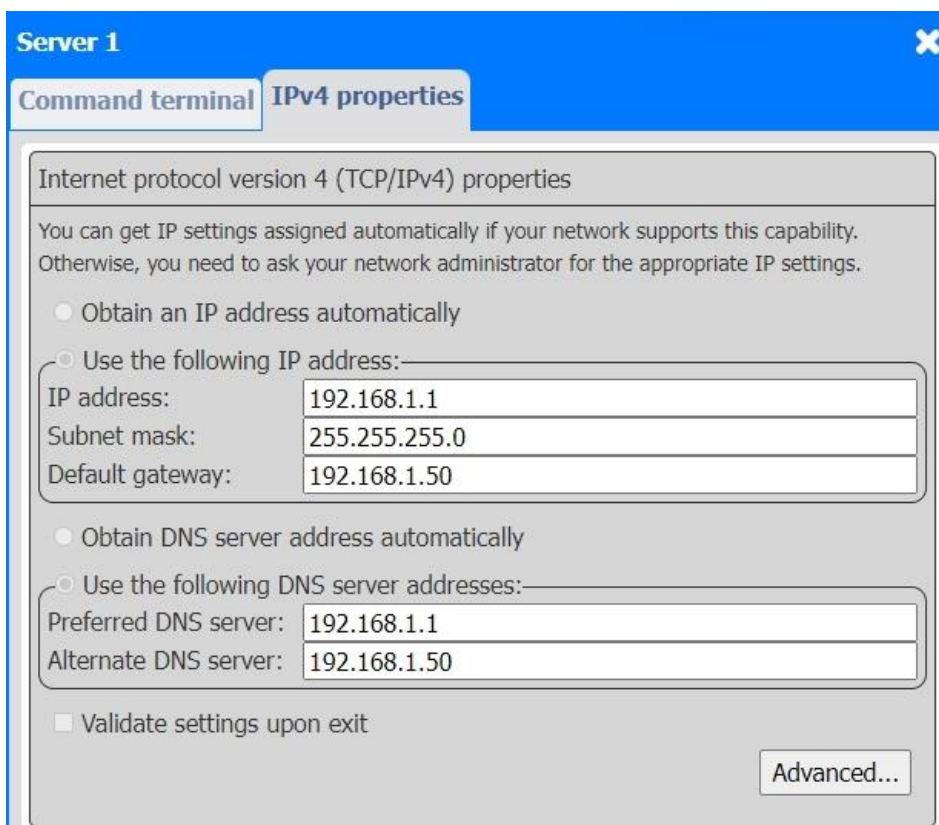
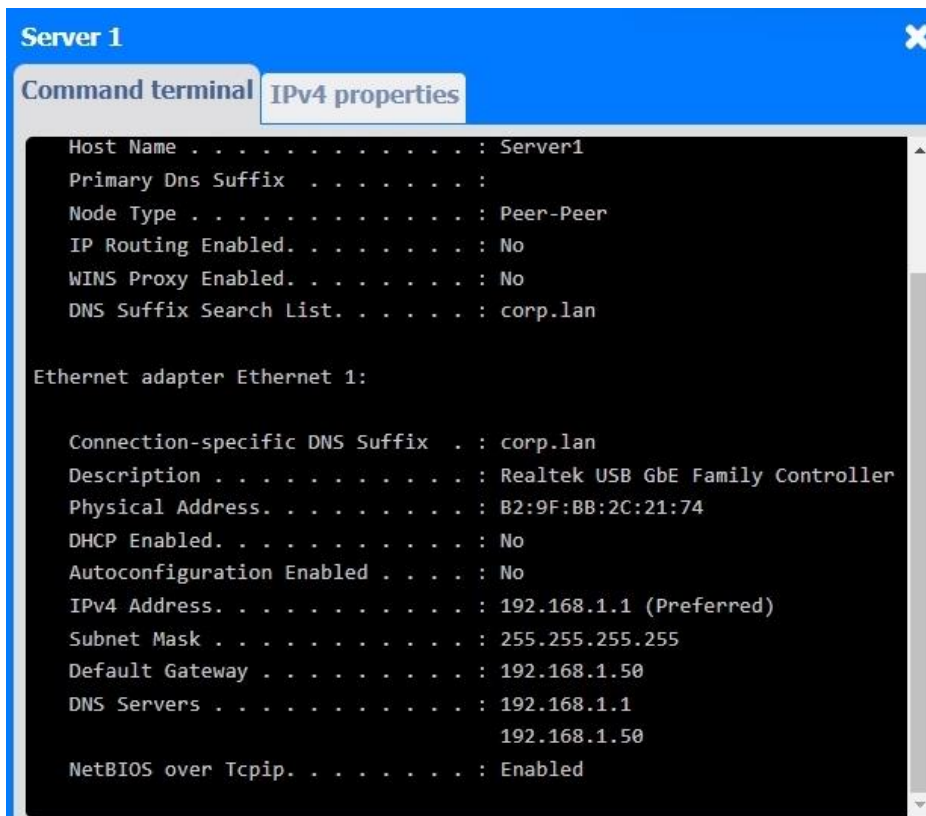
Command terminal IPv4 properties

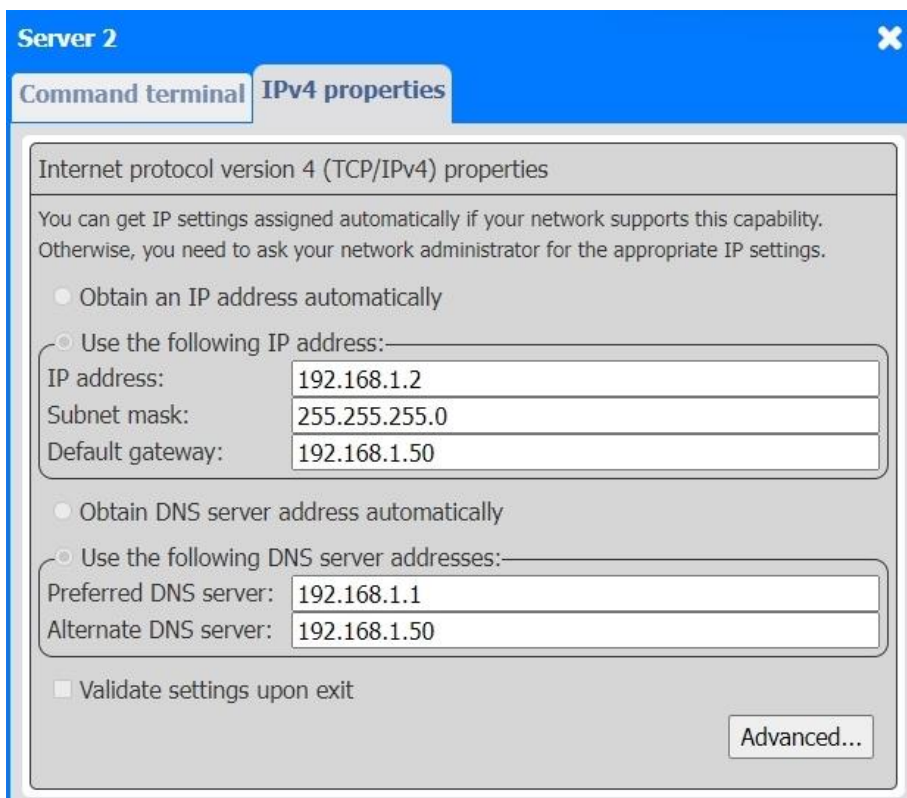
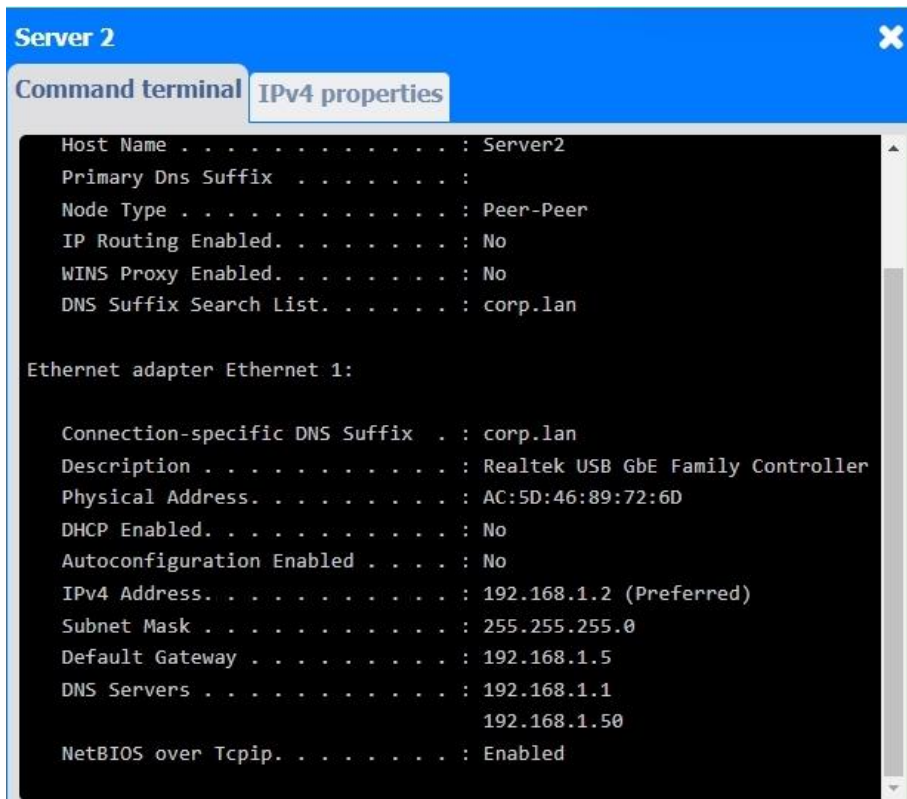
```
Host Name . . . . . : PC1
Primary Dns Suffix . . . . . :
Node Type . . . . . : Peer-Peer
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : corp.lan

Ethernet adapter Ethernet 1:

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







Answer:

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

1. PC 1

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

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

2. PC 2

Issue: PC 2 is configured with 192.168.1.2, which conflicts with Server 2 that has the same IP address. Solution: Update the IP address on PC 2 to something unique, like 192.168.1.4.

3. Server 1

Issue: The IP address for Server 1 is 192.168.1.1, which conflicts with PC1. Solution: Since Server 1 and PC1 are using the same IP address, change one of them. For Server 1, you could change the IP address to 192.168.1.5.

4. Server 2

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

General Remediation:

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

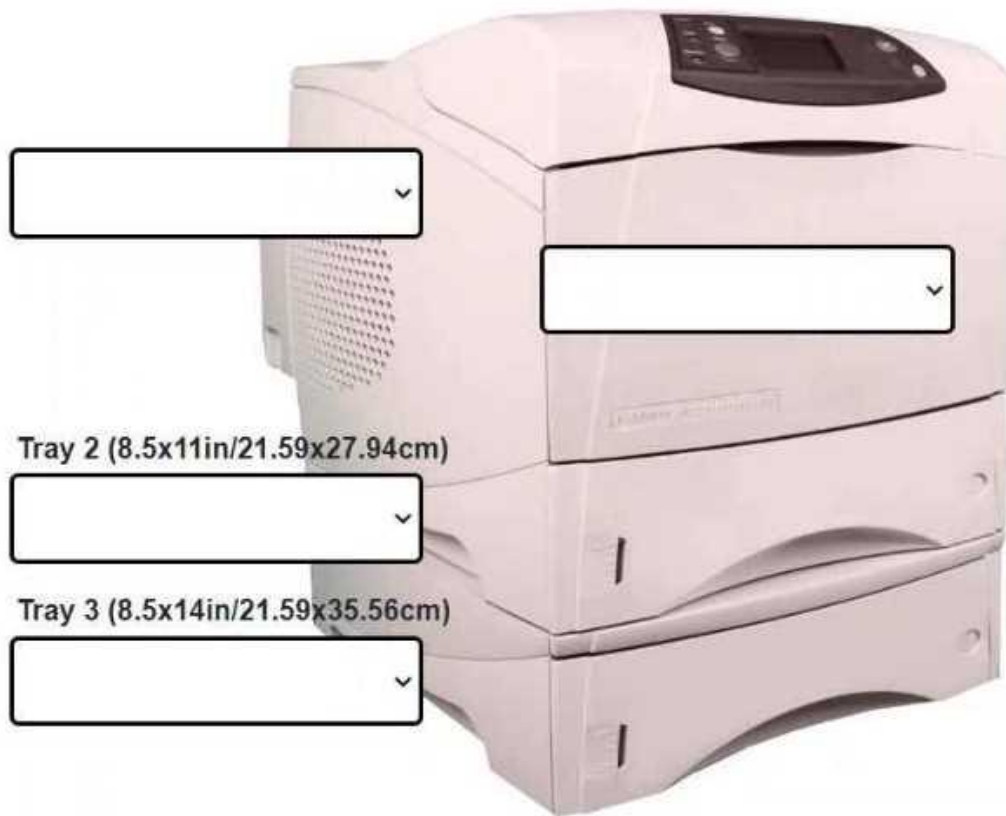
QUESTION 168

SIMULATION 9

An office manager reports that a printer is experiencing performance issues. Printouts are smudging when they are handled, and, recently whenever they need to print legal sized documents, the paper jams before anything is printed on it.

The following paper sizes are used:

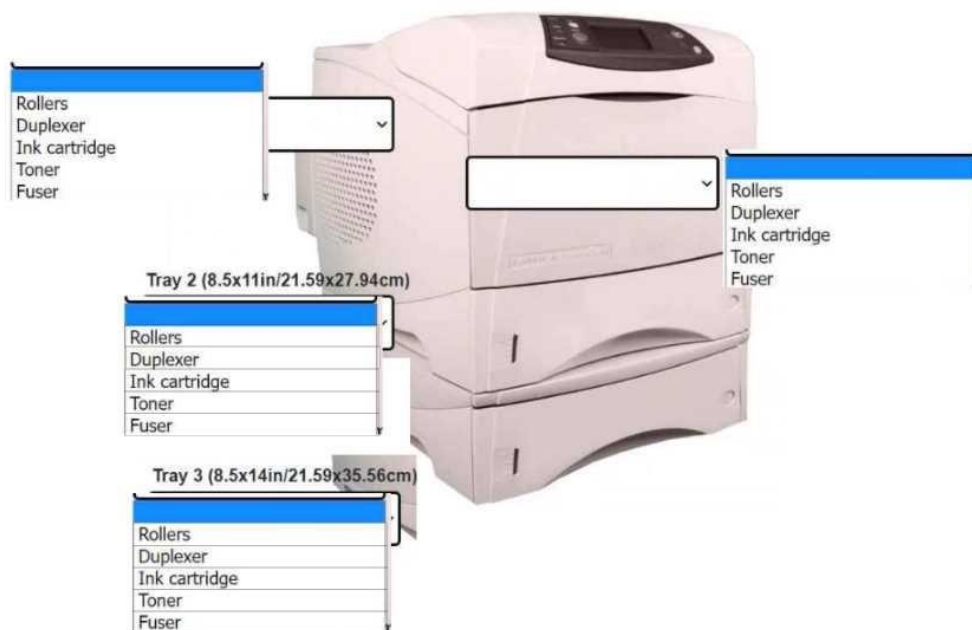
Letter (8.5x11in/21.59x27.94cm)
Legal (8.5x14in/21.59x35.56cm)
Oversized (11x17in/27.94x43.18cm)



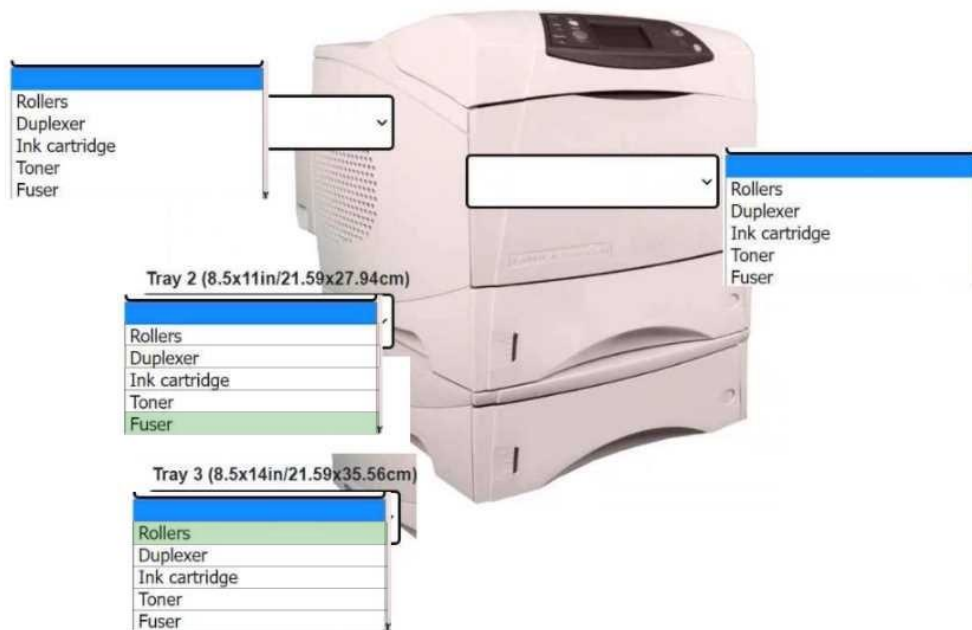
INSTRUCTIONS

Using the dropdown menus, select from the available printer parts to replace only the faulty components on the office printer to resolve the stated issues.

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



Answer:



QUESTION 169

A customer reports that a workstation has no internet connectivity. A technician confirms the port is disabled. Which of the following is most likely responsible for the issue?

- A. Patch panel
- B. Physical NIC

- C. Managed switch
- D. Stand-alone firewall

Answer: C

Explanation:

A managed switch allows an administrator to enable or disable individual ports as part of network security and management. If a port on a managed switch has been disabled, the device connected to that port will lose connectivity, which matches the scenario described.

QUESTION 170

Which of the following ports is commonly used for remote desktop connections?

- A. 137
- B. 445
- C. 3389
- D. 4443

Answer: C

Explanation:

Port 3389 is used by the Remote Desktop Protocol (RDP) for remote desktop connections in Windows environments. This port allows remote control and management of systems across the network.

QUESTION 171

A technician is setting up a scan-to-SMB function on a multifunction printer. Which of the following connection types should the technician configure?

- A. Email server
- B. SFTP connection
- C. Network share
- D. Print services

Answer: C

Explanation:

The scan-to-SMB feature allows the printer to send scanned documents to a shared folder (SMB share) on the network. Setting up a network share enables the device to securely and conveniently save files for user access.

QUESTION 172

Which of the following internet connection types is the best for extremely high data transfer with symmetrical upload and download speeds?

- A. DSL
- B. Cellular
- C. Fiber
- D. Satellite

Answer: C

Explanation:

Fiber optic connections provide the highest data transfer rates and symmetrical upload and download speeds. This makes fiber the ideal choice for applications requiring high-speed

connectivity, such as video conferencing, large file transfers, and cloud-based workflows.

QUESTION 173

Which of the following networking devices is used to create a mesh network?

- A. Modem
- B. DSL
- C. Access point
- D. ONT

Answer: C

Explanation:

Mesh networks rely on multiple access points (or mesh nodes) to create a seamless, self-healing network. Each access point communicates with others to extend coverage and improve reliability without requiring a wired backbone for each AP.

QUESTION 174

A user purchases a new mobile phone and tries to connect it to the corporate communications and email applications without success. Which of the following should a technician do to allow the phone to connect?

- A. Configure biometric security settings.
- B. Turn on LTE hotspot connectivity.
- C. Enroll the device in the MDM software.
- D. Complete the company's BYOD training process.

Answer: C

Explanation:

Mobile Device Management (MDM) enrollment ensures that mobile devices meet security and access policies required by the corporate network. By enrolling the device in MDM, the technician can apply necessary configurations and enable corporate app access.

QUESTION 175

Which of the following is the ability to automatically increase and decrease instances based on demand?

- A. Availability
- B. Scalability
- C. Multitenancy
- D. Elasticity

Answer: D

Explanation:

Elasticity in cloud computing refers to the ability of a system to automatically allocate and release resources (such as CPU, RAM, or virtual machines) as workload demands change. This feature is key to ensuring that resources are used efficiently without manual intervention.

QUESTION 176

A user is having trouble with the location services on their smartphone. Location-based applications show incorrect positions when the user is traveling. This issue affects the user's

ability to navigate and use location-dependent applications. Which of the following is the best way to resolve this issue?

- A. Downloading a third-party mapping application
- B. Resetting the network settings
- C. Enabling Wi-Fi to assist GPS
- D. Restarting the smartphone

Answer: C

Explanation:

Wi-Fi assistance in mobile devices helps improve location accuracy by using nearby wireless networks to triangulate the device's position, even when GPS signals are weak (like indoors or in dense areas).

QUESTION 177

Which of the following is related to the creation of a secured communication channel between workstations in different locations and is supported by credentials for authentication?

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

Answer: D

Explanation:

A Virtual Private Network (VPN) creates an encrypted, secure tunnel across a public or untrusted network. It uses authentication credentials to ensure that only authorized users can connect, keeping data safe from interception.

QUESTION 178

A company is testing the latest model of a laptop. After turning on the laptop, there is a noticeable burning smell. Which of the following steps should a technician take to troubleshoot the laptop issue? (Choose two)

- A. Turn it off and disconnect all power sources.
- B. Submit an emergency request to the local facilities manager.
- C. Check for foreign objects, liquid spills, and internal damage.
- D. Contact the vendor and submit a return request.
- E. Remove the device from the MDM.
- F. Try an alternate AC adapter.

Answer: AC

QUESTION 179

A technician needs to figure out why a laser printer is intermittently not feeding paper to print. The technician verifies the issue by running several copy-and-print tests. Which of the following should the technician do next?

- A. Update the printer drivers.
- B. Select the correct paper size.

- C. Clean the pickup rollers.
- D. Replace the toner cartridge.

Answer: C

Explanation:

When a laser printer intermittently fails to feed paper, the most common hardware cause is worn or dirty pickup rollers. These rollers grab the paper from the tray and move it into the printer. Over time, dust, paper debris, or worn rubber reduces their effectiveness, causing feeding issues.

QUESTION 180

Which of the following has the best penetration through physical objects, such as walls?

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

Answer: A

Explanation:

2.4GHz Wi-Fi signals have better penetration through walls and other obstacles compared to 5GHz and 6GHz. Lower frequency waves (like 2.4GHz) travel farther and are less absorbed by physical barriers.

QUESTION 181

Which of the following can be used to logically segment networks?

- A. MAC
- B. VLAN
- C. NIC
- D. DSL

Answer: B

Explanation:

A VLAN (Virtual Local Area Network) is a network technology used to logically segment a physical network into multiple distinct broadcast domains, even if they share the same hardware.

QUESTION 182

After troubleshooting a computer's connectivity, the network team determines there is a port-mapping issue. After plugging the patch cable into a different port, the issue persists. Which of the following troubleshooting steps should a technician take next to resolve the issue?

- A. Convert the patch cable to a crossover cable.
- B. Test the patch cable from the computer to the network closet.
- C. Verify the length of the patch cable meets current standards.
- D. Replace the patch cable from the device to the wall.

Answer: B

Explanation:

When port issues persist after moving to a different switch port, the next logical troubleshooting step is to test the patch cable. Faulty or damaged cables are a common cause of network connectivity problems. Using a cable tester between the computer and the network closet verifies

the integrity of the cable and rules out a physical layer issue.

QUESTION 183

Which of the following statements best summarize managed vs unmanaged switches? (Choose two)

- A. Unmanaged switches are generally more expensive
- B. Unmanaged switches have more security capabilities
- C. Unmanaged switches start working as soon as they are plugged in to the network
- D. Managed switches have more features
- E. Managed switches require no configuration
- F. Managed switches consume less power

Answer: CD

Explanation:

Unmanaged switches require no configuration--they simply need to be plugged in and start working immediately, making them ideal for simple network setups. Managed switches provide advanced features such as VLANs, SNMP monitoring, port security, and traffic management, but require configuration.

QUESTION 184

A user is testing a new OS that is contained on a USB drive. The user wants the new OS to load automatically when the computer is turned on. Which of the following should the user configure?

- A. BIOS password
- B. Trusted Platform Module
- C. USB permissions
- D. Boot options

Answer: D

Explanation:

To boot from a USB drive, the user must configure the boot order in the system BIOS/UEFI to prioritize the USB device. This setting tells the computer to load the operating system from the USB device on startup.

QUESTION 185

A technician is setting up a locally hosted environment for internal developers who need concurrent access to a wide array of test OSs. Which of the following would best fulfill this requirement?

- A. Hypervisor
- B. SaaS platform
- C. Multiboot server computer
- D. Sandbox

Answer: A

Explanation:

A hypervisor allows multiple operating systems to run simultaneously on a single physical host, making it the ideal solution for providing concurrent access to different test environments. Developers can use virtual machines (VMs) for testing and development.

QUESTION 186

An employee's screen keeps flashing. Sometimes the picture goes out and comes back. The employee checks the power cord and confirms the device is plugged in fully. Which of the following should a technician check for first?

- A. Loose video cable
- B. Failing graphics card
- C. Conflicting drivers
- D. Swollen motherboard capacitor

Answer: A

Explanation:

Intermittent display issues, such as a screen flashing on and off, are most commonly caused by a loose or faulty video cable connection. If the power cable is confirmed secure, the next logical step is to check the video (data) cable between the monitor and the computer.

QUESTION 187

A user reports that the print quality of their desk printer is poor. A technician replaces the ink cartridge, but this does not resolve the issue. Which of the following should the technician do next?

- A. Replace the pickup rollers
- B. Clean the printheads
- C. Switch the paper type
- D. Change the ribbon

Answer: B

Explanation:

If print quality remains poor after replacing the ink cartridge, the next step is to clean the printheads. Printheads can become clogged with dried ink, especially in inkjet printers, causing streaks or faded output.

QUESTION 188

An end user reports that their laptop shuts down when they undock it. Even when using a new charging cable, the issue persists. Which of the following should the technician do next?

- A. Flash the BIOS
- B. Update the drivers
- C. Try a different charger
- D. Replace the battery

Answer: D

Explanation:

If a laptop shuts down when undocked and remains powered off even with a new charging cable, the internal battery is likely faulty and cannot hold a charge. Replacing the battery is the next troubleshooting step.

QUESTION 189

A company provides cell phones to employees who travel internationally. An employee brings their phone to the help desk so the necessary equipment can be installed. However, the

technician cannot install any new hardware on the phone. Which of the following will the technician require so the phone can connect to a different provider?

- A. USB-C
- B. SD card
- C. eSIM
- D. MDM

Answer: C

Explanation:

An eSIM (embedded SIM) allows users to change carriers and provision new cellular service without installing any physical hardware. It is managed via software and is ideal for international travelers who need to switch providers quickly.

QUESTION 190

Which of the following internet connection types provides the fastest speeds and greatest coverage in less populated areas with minimal infrastructure?

- A. Fiber
- B. Cable
- C. DSL
- D. Cellular

Answer: D

Explanation:

Cellular networks offer broad coverage in rural or less populated areas where laying fiber, cable, or DSL lines may not be feasible or cost-effective. Cellular broadband (4G LTE/5G) provides fast speeds using existing mobile network infrastructure.

QUESTION 191

Which of the following ports should a technician disable to increase the security of remote connectivity?

- A. 22
- B. 23
- C. 25
- D. 53

Answer: B

Explanation:

Port 23 is used by Telnet, an unencrypted remote connection protocol that poses significant security risks. Disabling Telnet and using secure alternatives like SSH (port 22) is best practice.

QUESTION 192

A network operations analyst receives an automated alert regarding a server with an array. The analyst walks over to the server and sees a blinking orange light at the hard disk bay. The server is configured for RAID 1. Which of the following should the analyst do to resolve this issue?

- A. Change the array to RAID 0.
- B. Undo the array and create a new one.

- C. Update RAID card firmware.
- D. Replace the hard disk and rebuild the array.

Answer: D

Explanation:

A blinking orange light typically indicates a failed hard drive in the RAID array. In RAID 1 (mirroring), you can replace the failed drive and rebuild the array without data loss.

QUESTION 193

A technician upgrades a PC with two DIMMs, for a total of 32GB. After installing the two DIMMs, the user notices the OS is reporting only 16GB. Which of the following tasks should the technician perform to resolve the issue in the most rapid, cost-effective way possible?

- A. Roll back recent system updates
- B. Reinstall RAM in different slots.
- C. Update the OS to the latest version
- D. Replace the faulty motherboard

Answer: B

Explanation:

If newly installed RAM is not fully recognized, the most likely cause is incorrect installation or incompatible slots. Reseating or reinstalling the RAM modules in the correct slots can quickly resolve the issue without extra cost.

QUESTION 194

A company wants to have fast read speeds for its locally stored data

- A. Which of the following configurations has the lowest cost to fulfill this requirement?
- B. RAID 0
- C. RAID 1
- D. RAID 5
- E. RAID 10

Answer: A

Explanation:

RAID 0 (striping) provides the fastest read (and write) speeds at the lowest cost, as all disk capacity is used for storage and performance. However, it offers no redundancy.

QUESTION 195

Which of the following devices has ACL capabilities?

- A. PoE injector
- B. DSL
- C. Firewall
- D. Unmanaged switch

Answer: C

Explanation:

Firewalls are specifically designed to monitor, filter, and control network traffic using Access Control Lists (ACLs). ACLs define which traffic is allowed or denied based on parameters like IP

address, protocol, or port.

QUESTION 196

A user would like to connect a laptop to a monitor, keyboard, and mouse when in the office. The user prefers to use as few cables as possible. Which of the following would best achieve that goal?

- A. Bluetooth
- B. Managed switch
- C. Docking station
- D. Near-field communication

Answer: C

Explanation:

A docking station allows users to connect multiple peripherals (monitor, keyboard, mouse, etc.) to a laptop with a single connection, reducing cable clutter and improving convenience.

QUESTION 197

A user keeps getting an error message when trying to print a letter. The printer is normally used to print cards and invitations. The user tries printing from a different computer, but the issue persists. Which of the following should the user do to resolve the issue?

- A. Print fewer pages.
- B. Print on card stock
- C. Replace the rollers.
- D. Change the paper tray setting.

Answer: D

Explanation:

If a printer is set to use a special tray (for cards/invitations) but a different type of print job is attempted (like a letter), a paper tray setting mismatch can cause errors. Changing the tray setting to match the print media resolves the issue.

QUESTION 198

Which of the following should a company use to implement automatic time synchronization?

- A. DHCP
- B. UTM
- C. NTP
- D. AAA

Answer: C

Explanation:

NTP (Network Time Protocol) is specifically designed to synchronize the clocks of networked computers and devices automatically.

QUESTION 199

An end user reports that their laptop has a blank screen. A technician observes the keyboard lights are on, and the fan is running. Which of the following should the technician do next?

- A. Check the display ribbon cable.
- B. Contact vendor support
- C. Replace the inverter
- D. Connect to an external monitor

Answer: D

Explanation:

When a laptop powers on but the screen is blank, the quickest way to isolate the problem is to connect to an external monitor. This helps determine if the issue is with the laptop display or with the graphics subsystem.

QUESTION 200

Which of the following minimizes the time it takes to connect a display, keyboard, mouse, and network cable to a laptop?

- A. Lightning interface
- B. Port replicator
- C. USB hub
- D. Bluetooth

Answer: B

Explanation:

A port replicator is designed to allow a user to quickly connect a laptop to multiple peripherals (display, keyboard, mouse, network, etc.) using a single interface, reducing setup time.

QUESTION 201

A multifunction printer in a small office recently had issues with scan-to-email functionality. The manufacturer has an update ready to fix the printer issues. Which of the following would a technician most likely deploy to remediate the issue?

- A. Firmware
- B. Driver
- C. OS update
- D. HSM

Answer: A

Explanation:

Firmware is the embedded software on a device such as a printer. Manufacturers often release firmware updates to resolve hardware-specific functionality issues, such as scan-to-email or security vulnerabilities.

QUESTION 202

A technician is setting up a new SOHO wireless router. According to security best practices, which of the following should the technician do first?

- A. Enable encryption.
- B. Assign a static IP.
- C. Change the default password.
- D. Reset the router.

Answer: C

Explanation:

The first security step after deploying a new router is to change the default administrative password. Default credentials are well known and pose a security risk if left unchanged.

QUESTION 203

Which of the following can carry data and electricity to network devices? (Choose two)

- A. Router
- B. Injector
- C. Cable modem
- D. Access point
- E. PoE
- F. Unmanaged switch

Answer: BE

Explanation:

PoE (Power over Ethernet) allows both data and electrical power to be delivered over the same Ethernet cable. A PoE injector adds power to Ethernet cables for devices that need it.

QUESTION 204

A company deploys its infrastructure in self-operated data centers. The company recently migrated some of its applications to a public cloud. Which of the following most accurately describes the cloud model the company is following?

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

Answer: B

Explanation:

A hybrid cloud combines private infrastructure (on-premises, self-operated data centers) with public cloud services, providing flexibility and scalability.

QUESTION 205

A technician is setting up a new multifunction device to be used over a shared network connection. Copier functions need to be restricted to only office employees. Which of the following should the technician perform after configuring the device to use a print server that exists on the domain?

- A. SMTP implementation
- B. Firmware update
- C. User authentication
- D. SMB configuration

Answer: C

Explanation:

User authentication allows access to device functions (like printing and copying) to be restricted to authorized personnel. This is typically implemented on networked multifunction devices for security and auditing.

QUESTION 206

A technician observes slow startup times on a laptop. Which of the following is most likely causing the issue?

- A. HDD
- B. RAM
- C. NIC
- D. BIOS

Answer: A

Explanation:

A hard disk drive (HDD), especially if it's older or nearly full, is the most common cause of slow startup times in laptops. HDDs are much slower than SSDs and can significantly bottleneck the boot process.

QUESTION 207

Which of the following display technologies typically provides the highest contrast?

- A. IPS
- B. OLED
- C. TN
- D. VA

Answer: B

Explanation:

OLED (Organic Light-Emitting Diode) technology can turn off individual pixels completely, producing "true black" and resulting in the highest contrast ratios compared to other display types.

QUESTION 208

Which of the following types of RAM would most likely be used in a server?

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

Answer: B

Explanation:

ECC (Error-Correcting Code) RAM is commonly used in servers because it can detect and correct memory errors, providing greater stability and reliability for mission-critical environments.

QUESTION 209

A company migrates a local application to an internal cloud platform. Which of the following best describes this cloud platform?

- A. Private
- B. Public

- C. Community
- D. Hybrid

Answer: A

Explanation:

An internal cloud platform operated exclusively for a single organization is a private cloud, providing dedicated resources and enhanced control.

QUESTION 210

A technician sets up secure print and configures an NFC device that will authenticate users for access. Which of the following will the NFC device most likely use to authenticate?

- A. Badging
- B. Password
- C. Passcode
- D. Biometrics

Answer: A

Explanation:

Badging refers to the use of NFC-enabled ID badges or cards that authenticate users when tapped against a reader for secure print or access control.

QUESTION 211

A customer recently lost data due to several unexpected shutdowns. Data integrity is important to the customer. Which of the following features should the technician choose to prevent data loss?

- A. Redundant power supply
- B. Uninterruptible power supply
- C. Modular power supply
- D. High-efficiency power supply

Answer: B

Explanation:

An uninterruptible power supply (UPS) protects systems against power outages by providing temporary backup power, giving users time to save data and safely shut down.

QUESTION 212

Which of the following allows a physical server to host multiple virtual machines?

- A. Cross-platform virtualization
- B. Hypervisor
- C. Sandbox
- D. SaaS

Answer: B

Explanation:

A hypervisor is software or firmware that allows multiple operating systems (virtual machines) to run on a single physical host. It manages the allocation of resources and isolation of each VM.

QUESTION 213

Which of the following virtualization technologies is best suited for running microservices?

- A. Containers
- B. VDI
- C. Type 2 hypervisors
- D. Type 1 hypervisors

Answer: A

Explanation:

Containers provide lightweight virtualization, ideal for deploying microservices because they are isolated, portable, and require fewer resources than traditional VMs.

QUESTION 214

An IT specialist sets up a new computer for a user who requires a high-end video card and the fastest hard drive possible. Which of the following connectors should the specialist verify are available on the motherboard? (Choose two)

- A. Molex
- B. NVMe
- C. SATA
- D. FireWire
- E. USB-C
- F. PCIe

Answer: BF

Explanation:

PCIe (Peripheral Component Interconnect Express) is required for high-end video cards. NVMe (Non-Volatile Memory Express) utilizes the M.2 or PCIe interface for the fastest SSD performance.

QUESTION 215

A user's phone does not respond to touch. A technician inspects the phone but does not see any evidence of physical damage. The technician restarts the device, which does not fix the issue. Which of the following components should the technician examine next?

- A. Battery
- B. Screen
- C. Stylus
- D. Digitizer

Answer: D

Explanation:

The digitizer is the component responsible for detecting touch input on a screen. If touch is not registering and there's no physical damage, the digitizer may be faulty.

QUESTION 216

A user can connect their laptop to the internet in the main office. However, when the user places the laptop on top of a motor on the factory floor, there is no internet connectivity. Which of the following is the most likely cause of this issue?

- A. Jitter
- B. Insufficient power levels
- C. External interference
- D. High latency

Answer: C

Explanation:

Large electrical motors can emit electromagnetic interference (EMI), which can disrupt wireless signals and prevent connectivity.

QUESTION 217

Which of the following is a characteristic of an NVMe drive?

- A. M.2 interface
- B. 3.5in (8.9cm) external
- C. 7,200rpm
- D. Molex connector

Answer: A

Explanation:

NVMe (Non-Volatile Memory Express) drives commonly use the M.2 interface and provide the highest performance for SSDs.

QUESTION 218

Which of the following connector types is associated with coaxial terminations serving cable internet deployments?

- A. DB9
- B. ST
- C. F-type
- D. RJ45

Answer: C

Explanation:

F-type connectors are commonly used to terminate coaxial cables in cable internet, cable TV, and satellite connections.

QUESTION 219

A technician receives several complaints from the same office about VoIP calls sounding broken up, being difficult to hear, and having lagging audio. The technician arrives on-site and runs an internet speed test on several wired and wireless computers. Internet speed seems normal throughout the office. Which of the following should the technician do to fix the call issues?

- A. Enable QoS in the router
- B. Configure PoE on the switch
- C. Change the encryption from WPA3 to WPA2
- D. Turn on MAC address filtering

Answer: A

Explanation:

Quality of Service (QoS) prioritizes VoIP traffic on the network, reducing jitter, latency, and packet loss to improve call quality.

QUESTION 220

A technician needs to update a web server's IPv4 address in a DNS server. Which of the following records should the technician update?

- A. AAAA
- B. MX
- C. CNAME
- D. A

Answer: D

Explanation:

An A record maps a domain name to an IPv4 address in a DNS server.

QUESTION 221

A technician needs to prepare a conference room for a meeting. The technician connects the laptop to the LCD projector and audio system, and then verifies the connectivity of each device. The meeting begins, but the visual presentation suddenly cuts off 30 minutes later. The audio continues to play without interruption. The technician brings in a backup laptop and connects it to the projector. The meeting continues without issue for 15 minutes until the presentation suddenly cuts off again. Which of the following should the technician do to resolve this issue?

- A. Check the laptop's audio output
- B. Verify the input source
- C. Examine the display for burn-in
- D. Inspect the cables for damage
- E. Clean or replace the filter

Answer: E

Explanation:

Overheating is a common cause of projectors shutting down after extended use. A clogged air filter can cause overheating, resulting in intermittent shutdowns.

QUESTION 222

A technician installs an upgraded wireless access point. The technician then notices the activity light comes on briefly and turns off. The access point continues to exhibit this behavior repeatedly and does not come online. Which of the following is the most likely cause of this issue?

- A. High latency
- B. Port flapping
- C. External interference
- D. Channel conflict

Answer: B

Explanation:

Port flapping refers to a network port continuously going up and down, which can prevent the access point from fully coming online.

QUESTION 223

A technician is setting up a workstation. Which of the following settings should the technician configure to ensure that users can connect to the network? (Select three).

- A. APIPA
- B. Gateway
- C. IP address
- D. Subnet mask
- E. Static routes
- F. UPnP settings
- G. NAT rules
- H. MAC filters

Answer: BCD

Explanation:

For a device to communicate on a network, it must have a valid IP address, subnet mask, and default gateway configured.

QUESTION 224

A major retailer is moving its online shopping website to the cloud and wants to expand its server resources as needed during busier shopping days. Which of the following should the retailer consider?

- A. Location
- B. Elasticity
- C. Availability
- D. Multitenancy

Answer: B

Explanation:

Elasticity in cloud computing refers to the ability to automatically scale resources up or down based on demand, making it ideal for businesses with fluctuating workloads.

QUESTION 225

A network printer does not release a user's final print job from the queue, but the user's other print jobs successfully printed a few moments before. Other users can print without issues. Which of the following should the user check first to solve the issue?

- A. If the print job is configured to a tray or manual feed
- B. If the computer and printer are connected to the same network
- C. If the print queue is full and will not allow additional jobs
- D. If the printer has stopped due to empty trays

Answer: A

Explanation:

If only one print job fails and others succeed, it is often due to a paper type or tray selection mismatch for that specific job. If a print job is configured to use a tray that is empty or set to manual feed, it will not be released until resolved.

QUESTION 226

A technician is troubleshooting a workstation that repeatedly shuts down within ten minutes of being turned on. The technician notices a loud clicking sound coming from inside the case. Which of the following components should the technician check first?

- A. Exhaust fan
- B. Capacitors
- C. CPU fan
- D. Intake fan

Answer: C

Explanation:

A failing CPU fan may make unusual noises (including clicking) and, if it is not cooling the CPU, the system will quickly overheat and shut down to prevent damage.

QUESTION 227

Which of the following allows for a beam of light to transmit data through a flexible cable?

- A. Coaxial
- B. HDMI
- C. Thunderbolt
- D. Single-mode fiber

Answer: D

Explanation:

Single-mode fiber (as well as multi-mode fiber) transmits data using beams of light, allowing for high-speed data transfer over flexible fiber-optic cables.

QUESTION 228

An IT specialist is setting up a new, custom computer. The specialist wants to minimize the number of power cables to keep the internal components organized and uncluttered. Which of the following power supply types should the specialist use?

- A. Modular
- B. Redundant
- C. Linear
- D. External

Answer: A

Explanation:

A modular power supply allows the user to connect only the cables needed, reducing clutter and improving organization inside the case.

QUESTION 229

A company policy change requires all computers to be encrypted. Which of the following technologies should a technician configure to meet this new requirement?

- A. NVMe
- B. RISC
- C. ARM
- D. TPM

Answer: D

Explanation:

A Trusted Platform Module (TPM) is a hardware chip used to enable encryption technologies such as BitLocker, providing secure key storage for system-wide encryption.

QUESTION 230

A company wants to use cloud services with the requirement that data will reside on physical hardware that will not be shared with other companies. Which of the following meets this requirement?

- A. Dedicated resources
- B. Elasticity
- C. Hybrid cloud
- D. SaaS

Answer: A

Explanation:

Dedicated resources (sometimes called single-tenant or bare metal) guarantee that physical hardware is allocated exclusively to one customer and not shared.

QUESTION 231

A user connects a company-issued laptop to a 4K TV but can only get 1080p resolution on the TV. The technician confirms that the laptop is capable of producing a 4K output. Which of the following is the most likely cause of the issue?

- A. The TV firmware is out of date
- B. The HDMI cable version is incorrect
- C. The laptop firmware is not current
- D. The CPU cannot keep up with the transcoding

Answer: B

Explanation:

An older HDMI cable version may not support 4K resolution. For 4K output, both the device and the cable must support HDMI 2.0 or higher.

QUESTION 232

Which of the following is an isolated virtual machine?

- A. Sandbox
- B. Hypervisor
- C. Container
- D. VDI

Answer: A

Explanation:

A sandbox is an isolated virtual environment, often used for testing code or software safely without affecting the host system.

QUESTION 233

A user cannot see the office multifunction printer in their laptop's print options. They have printed to the device in the past successfully. The user's laptop is connected to the guest wireless network. Other users on both wireless and wired computers can see and print to the printer. Which of the following will fix the issue?

- A. Power cycle the printer to refresh connectivity.
- B. Reset the closest wireless AP.
- C. Download the printer driver from the manufacturer's website.
- D. Connect the laptop to the corporate Wi-Fi.

Answer: D

Explanation:

If the user is on a guest network and cannot access internal resources like printers, connecting to the corporate Wi-Fi will place the device on the correct subnet to access the printer.

QUESTION 234

A technician receives a notification after a network outage that indicates the printer is not reachable. Which of the following printer settings should the technician implement to prevent this issue in the future?

- A. Gateway
- B. Static IP
- C. APIPA
- D. DHCP

Answer: B

Explanation:

Assigning a static IP to network printers ensures the printer's address does not change after outages or DHCP lease expirations, preventing connectivity issues.