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220-1001

CompTIA A+ Certification Exam: Core 1

Version 6.0

Score: 800/1000

Version:

Time Limit: 120 Minutes

Exam A (173 questions)

Question 1

Which of the following is used to connect a headset to a laptop?

- ☐ eSATA
- ☐ BNC
- ☐ RG-6
- ☐ USB

Question 2

A systems administrator is configuring a server to host several virtual machines. The administrator configures the server and is ready to begin provisioning the virtual machines.

Which of the following features should the administrator utilize to complete the task?

- ☐ Hypervisor
- ☐ Disk management
- ☐ Terminal services
- ☐ Device Manager
- ☐ Virtual LAN

Question 3

A technician wants to set up a virtual machine in a public cloud environment.

Which of the following cloud models should the technician use?

- ☐ IaaS
- ☐ SaaS
- ☐ PaaS
- ☐ DBaaS

Question 4

Multiple users report that the network printer, which is connected through the print server, is not printing.

Which of the following should a technician do FIRST to remedy this situation?

- ☐ Replace the USB cable.
- ☐ Reinstall the drivers on users' PCs.
- ☐ Have users restart their PCs.
- ☐ Clear the print queue.

Question 5

A technician is buying a PC that will host three VMs running at the same time with the current configuration. The technician believes there might be a need to run several additional VMs in the near future. Which of the following resources would be the MOST important to upgrade to allow for the additional VMs?

- ☐ CPU
- ☐ SSD
- ☐ NIC
- ☐ RAM

Question 6

A technician is setting up a laptop and projector for a presentation. When plugging in the projector, it mirrors the desktop screen from the laptop, but everything appears distorted and compressed.

Which of the following should the technician do to correct the appearance of the image on the projector?

- ☐ Update the laptop graphics driver.
- ☐ Change the scaling options.
- ☐ Change the desktop resolution.
- ☐ Replace the video cable.
- ☐ Utilize a USB VGA graphics adapter.
- ☐ Adjust the keystone settings on the projector.

Question 7

Some users are unable to access the Internet from their workstations. A technician runs the ipconfig command on one of the workstations and sees the following:

```
IPv4 address 192.168.1.27
Subnet mask 255.255.255.0
Default gateway 192.168.1.1
```

The technician pings 8.8.8.8 and gets no response. Next, the technician pings 192.168.1.1 and gets no response. The technician is able to successfully ping an adjacent workstation but cannot ping the print server on the floor below. Which of the following is the MOST likely cause of the Internet connectivity issue in the office?

- ☐ There is a problem with a router in the office
- ☐ There is a problem with a DNS server in the office
- ☐ The users are not getting correct IP addresses from the DHCP server
- ☐ The wireless access point in the area is down

Question 8

A user wants to print a large job on both the front and back sides of the paper.

Which of the following settings should the technician advise the user to change in the printer settings?

- ☐ Collate
- ☐ Orientation
- ☐ Duplex
- ☐ Transparency

Question 9

A technician wants the number of virtual machines hosting a web application in the public cloud environment to scale based on real-time traffic on the website.

Which of the following should the technician configure?

- ☐ Resource pooling
- ☐ Rapid elasticity
- ☐ Measured service
- ☐ High availability

Question 10

A technician is talking to end users about the specifications for an upgraded application server. The users of the application report that there cannot be any unscheduled downtime or data loss. Additionally, they would like the performance of the application to improve over the previous server in any way possible. The previous server was running RAID 5.

Which of the following RAID solutions should be implemented in this scenario?

- ☐ RAID 0
- ☐ RAID 1
- ☐ RAID 6
- ☐ RAID 10

Question 11

A customer recently moved a high-end graphics card from a known-working computer to a different computer. The computer works without issue when viewing email and web pages or when using certain applications. However, when a game with high-end graphics requirements is opened, the program will run for a few minutes before the computer shuts down. Which of the following is MOST likely causing the problem?

- ☐ Power supply wattage
- ☐ Video RAM
- ☐ CPU frequency
- ☐ Monitor resolution

Question 12

A technician is troubleshooting network connectivity issues after a new wireless router was installed in an office. Users who connect to the new router are unable to access LAN resources. Which of the following is the MOST likely cause of the issue?

- ☐ There are conflicting DHCP servers on the network
- ☐ There are conflicting ARP records
- ☐ There are conflicting gateways on the network
- ☐ There are conflicting IP protocols

Question 13

Ann, an accountant, reports that after turning on her new laptop, she received a message stating her IP address is already in use on the system. She tried going back to her old desktop, which she now only uses for email, but received the same message. The technician checks the account and sees a comment that Ann requires a special network setup to connect to the banking software. Which of the following should the technician do to resolve the issue?

- ☐ Remove the static IP configuration from the desktop.
- ☐ Set the laptop configuration to DHCP to prevent conflicts.
- ☐ Replace the network card in the laptop, as it may be defective.
- ☐ Bridge the LAN connection between the laptop and the desktop.

Question 14

SIMULATION

The network administrator has changed the IP address of ComputerA from 192.168.1.20 to 10.10.10.20 and now Jane, a user, is unable to connect to file shares on ComputerA from ComputerB using the computer name.

INSTRUCTIONS

Using the available tools, resolve the connectivity issues.

After troubleshooting the issue, verify a successful connection.

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

```
-----
--- Welcome to Computer A -----
-----
```

```
c: > |
```

```
Reply from 10.10.10.10.30: bytes=32 time=13ms FTL=52
```

```
Reply from 10.10.10.10.30: bytes=32 time=13ms FTL=52
```

```
Ping statistics for 10.10.10.10:
```

```
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 13ms, Maximum = 13ms, Average = 13ms
```

```
c:\> ?
```

```
% Invalid input detected, query help for valid commands.
```

```
c:\> help
```

```
    ipconfig
    nslookup
    ping
    tracert
```

```
    help
```

```
c:\> nslookup
```

```
% Invalid input detected, query help for valid commands.
```

```
c:\> nslookup
```

```
% Invalid input detected, query help for valid commands.
```

```
c:\> help
```

```
    ipconfig
    nslookup
    ping
    tracert
    help
```

```
c:\>
```

```
-----
--- Welcome to Computer B -----
-----
```

```
c:\>
```

```
-----  
c:\> ipconfig  
  
Windows IP Configuration  
  
Ethernet adapter Ethernet:  
  
    Connection-specific DNS Suffix . . . . . : local.net  
    IPv4 Address . . . . . : 10.10.10.30  
    Subnet Mask . . . . . : 255.255.255.0  
    Default Gateway . . . . . : 10.10.10.1  
  
c:\> ping 10.10.10.20  
  
Pinging 10.10.10.20 with 32 bytes of data:  
Reply from 10.10.10.20: bytes=32 time=13ms TTL=52  
Reply from 10.10.10.20: bytes=32 time=13ms TTL=52  
Reply from 10.10.10.20: bytes=32 time=13ms TTL=52  
Reply from 10.10.10.20: bytes=32 time=13ms TTL=52  
  
Ping statistics for 10.10.10.20:  
    Packets: Sent = 4, Received = 4, Loat = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
    Minimum = 13ms, Maximum = 13ms, Average = 13ms  
  
c:\> nslookup  
    % Invalid input detected, query help for valid commands.  
c:\>  
computerB
```

Question 15

An engineer is working at a remote site that does not have Internet access. Which of the following features should the engineer use to connect a laptop to the Internet if hotspot functionality is unavailable?

- ☐ Tethering
- ☐ Near field communication
- ☐ Wireless LAN
- ☐ Virtual private network

Question 16

A technician is replacing an older video card with a new high-end video card in a workstation. The installation was successful, the new card seated properly, and power is connected. However, upon booting, the computer now emits several beeps and will not boot, but shows no error messages. Which of the following is MOST likely the cause of this issue?

- ☐ The BIOS is out-of-date
- ☐ The is not enough PSU output
- ☐ There is an onboard RAM mismatch
- ☐ GPU is overlocked
- ☐ The firmware is out-of-date

Question 17

A user brings in a smartphone for repair. The device is unable to send/receive calls or connect to WiFi. All applications on the device are working unless they require connectivity.

Which of the following is MOST likely causing the problem?

- ☐ Airplane mode
- ☐ Tethering
- ☐ Disabled hotspot
- ☐ VPN

Question 18

A client has three locations within city limits that need to be networked. Vendor network requirements for all three locations are a minimum of 1GB.

Which of the following are the types of networks that will MOST likely be used for internal office and office-to-office networking? (Choose two.)

- ☐ MAN
- ☐ LAN
- ☐ WAN
- ☐ PAN
- ☐ SAN
- ☐ WLAN

Question 19

A technician is troubleshooting a laptop/projector combination that is displaying artifacts on the screen. When a different laptop is connected to the projector, the image appears to be correct but is very dim.

Which of the following steps should the technician take to address these issues? (Choose two.)

- ☐ Update the video drivers on the laptop.
- ☐ Increase the projector contrast.
- ☐ Replace the original laptop.
- ☐ Change the aspect ratio on the projector.
- ☐ Replace the bulb in the projector.
- ☐ Modify the laptop's display resolution.

Question 20

Joe, a user, recently purchased a new multifunction printer and attempted to install it himself. He informed a technician that the printer is on his list of printers, but he is unable to print. The technician sees that the printer is listed as a generic printer under Devices and Printers. Which of the following should the technician do NEXT?

- ☐ Reboot the computer into safe mode and try to print a test page
- ☐ Download the correct drivers from the manufacturer's website and install them
- ☐ Unplug the USB cable from the printer and try another USB slot on the PC
- ☐ Set the printer as the default within the device properties

Question 21

DRAG DROP

A customer, Ann, has requested two custom PCs, one to be used for gaming and the other to be used as a virtualization workstation for her business.

The gaming PC should support the latest games and gaming peripherals.

The virtualization workstation should be able to host several production virtual machines as part of Ann's home business.

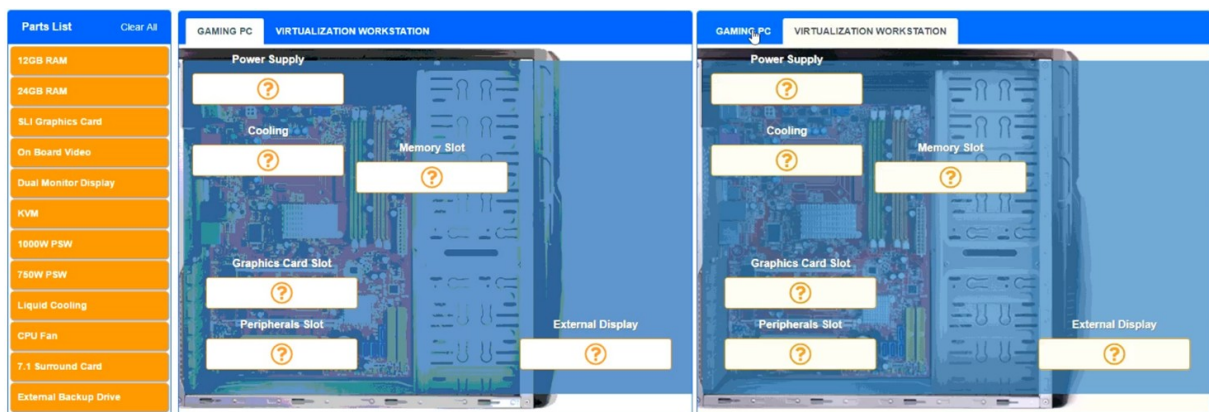
INSTRUCTIONS

Use the tabs at the top to switch between the PCs.

Objects should be placed on the appropriate slot/display areas and can only be used once.

All slot/display areas should be filled.

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



Question 22

A customer asks a technician to help set up a specialized computing system for video editing.

Which of the following should the technician install on the workstation to BEST meet the customer's specifications? (Choose two.)

- ☐ SSD
- ☐ Dual monitors
- ☐ Gigabit NIC
- ☐ Hypervisor
- ☐ Docking station
- ☐ NAS

Question 23

A user reports being unable to browse the Internet. A technician believes the cause of the issue is related to DNS.

Which of the following should the technician perform NEXT?

- ☐ Test the theory by attempting to browse to a website's known IP address.
- ☐ Implement preventive measures by manually assigning a DNS server to the PC.
- ☐ Identify the problem by running the command `ipconfig /flushdns`.
- ☐ Document the findings in the organization's local knowledge base.

Question 24

A technician needs to routinely run scripting commands in Linux but does not want to walk over to the server room every time to perform the task. The technician also travels between buildings and has a Windows 10 laptop with 4GB of memory and a fully partitioned 500GB hard drive.

Which of the following steps should the technician take to resolve this issue? (Choose two.)

- ☐ Increase the memory to 8GB.
- ☐ Install a Linux guest VM.
- ☐ Add another 500GB hard drive.
- ☐ Create a Linux LiveBoot CD.
- ☐ Repartition the hard drive.
- ☐ Install Linux on a new ext3 partition.

Question 25

A laptop is connected to a conference room projector in extended display mode. The desktop icons appear normal on the laptop, but are disproportionate and illegible on the projector screen. Which of the following should the technician check?

- ☐ Video resolution
- ☐ HDMI connection
- ☐ Keystone
- ☐ Focus

Question 26

Which of the following channels would commonly be used on an 802.11 wireless network?

- ☐ 6
- ☐ 17
- ☐ 802
- ☐ 8080

Question 27

Several computers are having network connectivity issues. Two of the computers are wired and are not having any issues. The technician verifies that none of the computers having issues have been assigned a static IP.

Which of the following should the technician check NEXT?

- ☐ Check the closest AP for the area.
- ☐ Check each wireless adapter switch
- ☐ Check the group's network switch.
- ☐ Check the DHCP server.

Question 28

Company management wants to give users the ability to work from home during periods of bad weather. Which of the following would enable the workforce to do this?

- ☐ NAT
- ☐ VLAN
- ☐ VPN
- ☐ HIPS

Question 29

Which of the following cloud computing concepts facilitates automated server deployment?

- ☐ NaaS
- ☐ IaaS
- ☐ PaaS
- ☐ SaaS

Question 30

A user's laptop is shutting down unexpectedly. The technician discovers the shutdowns only happen when the laptop is moved from one room to another. The technician reseated the hard drive, memory, battery, and LCD cable, but the laptop continues to shut down.

Which of the following is the MOST probable cause of the issue?

- ☐ Residual energy on the motherboard
- ☐ System overheating
- ☐ Distended capacitors
- ☐ Loose battery connection
- ☐ CMOS battery failure

Question 31

The feature that allows users to store files in cloud-based when necessary, but can removed when space is freed up, is known as:

- ☐ on-demand
- ☐ resource pool
- ☐ synchronization application
- ☐ shared resources

Question 32

Users report they have to select the output tray at the printer, even though the correct tray is selected in the print dialog.

Which of the following should a technician perform FIRST to attempt to solve the problem?

- ☐ Check the user's account for the correct printing privileges.
- ☐ Reinstall the driver on the print server.
- ☐ Update the firmware on the commercial office printer.
- ☐ Run Windows Update on the affected computers.

Question 33

A technician is dispatched to troubleshoot a slow performance issue on a PC. Upon arrival, the technician immediately opens Task Manager and sees that CPU and RAM performance are within normal ranges. The technician then checks and verifies the speed and duplex settings and performance on the network card. The technician then temporarily disables the antivirus to see if performance is affected, and it is not. After re-enabling the antivirus, which of the following is the NEXT best step for the technician to take?

- ☐ Check to see if insufficient hard drive space is causing the issue
- ☐ Update the operating system, drivers, and firmware on the PC
- ☐ Log into the PC with another user profile and test performance
- ☐ Shut down the PC, unplug the power for 30 seconds, and then boot the PC

Question 34

A customer contacts the help desk stating a laptop does not remain charged for more than 30 minutes and will not charge more than 15%. Which of the following components are the MOST likely causes the issue? (Select three.)

- ☐ LCD power inverter
- ☐ AC adapter
- ☐ Battery
- ☐ Processor
- ☐ VGA card
- ☐ Motherboard
- ☐ Backlit keyboard
- ☐ Wireless antenna

Question 35

An associate is seeking advice on which device to purchase for a friend who is a business owner. The friend needs the ability to chat activity while keeping in contact with the home office.

Which of the following would be the BEST recommendation?

- ☐ Smart watch
- ☐ Fitness monitor
- ☐ Global positioning sensor
- ☐ Portable hotspot

Question 36

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

- ☐ Firewall
- ☐ Managed switch
- ☐ Repeater
- ☐ Gateway

Question 37

A technician was called to check an unexpected clicking noise on a desktop that has become more frequent every time a video editing application is loaded. The system fans have been replaced, but the clicking noise remains. Diagnostics have been run on the video card.

Which of the following should the technician do FIRST?

- ☐ Replace the hard drive.
- ☐ Replace the video card.
- ☐ Do a System Restore.
- ☐ Perform a full data backup.
- ☐ Scan the system for viruses.

Question 38

A technician is ordering a new motherboard and processors for a company email server. When reviewing the vendor licensing agreement, the technician sees that there is a flat per-socket licensing fee.

Which of the following motherboard/processor combinations should the technician order to get the BEST performance while minimizing licensing fees?

- ☐ A dual-processor motherboard with six hyperthreaded cores each.
- ☐ A single-processor motherboard with eight hyperthreaded cores.
- ☐ A dual-processor motherboard with eight overclocked cores each.
- ☐ A single-processor motherboard with ten overclocked cores.

Question 39

A user printed several documents to a shared network copier and noticed that they have very faint color density. A technician investigates the issue and verifies that the printer had a maintenance kit installed recently. Which of the following next steps will MOST likely resolve the issue? (Select two.)

- ☐ Replace the toner cartridges
- ☐ Replace the fuser module
- ☐ Clean the paper tray rollers
- ☐ Adjust the printer settings
- ☐ Replace the developer
- ☐ Empty the waste toner bottlers

Question 40

An end user wants to have a second monitor installed on a laptop. Which of the following would allow a technician to configure the laptop to show both screens once the cable is connected?

- ☐ Plug an external monitor into the USB port.
- ☐ Use the Fn and function key combination
- ☐ Adjust the monitor display settings.
- ☐ Enable DisplayPort.

Question 41

About one week ago, access to files on a network server became significantly slower. Today, network files are completely unavailable. A technician is able to make a remote connection to the server. Which of the following should the technician check NEXT?

- ☐ RAID 5 array
- ☐ NIC configuration
- ☐ Available storage space
- ☐ RAM utilization

Question 42

Which of the following has a P4 connector to provide a 12V output?

- ☐ Molex connector
- ☐ 24-pin adapter
- ☐ SCSI cable
- ☐ eSATA cable

Question 43

After upgrading a smartphone's OS, Joe, a user, reports the smartphone no longer connects to his automobile automatically when near it, Joe, restarts the smartphone, but the problem persists. Which of the following should a technician do NEXT to restore the previous functionality?

- ☐ Connect the smartphone to the automobile via USB
- ☐ Reenable the smartphone's Bluetooth radio
- ☐ Perform a rollback of the smartphone's OS
- ☐ Pair the smartphone with the automobile

Question 44

An end user reports a Windows based PC just had a BSOD. The PC rebooted, and the user is now logged back in and working without any issues. Which of the following should a technician check FIRST to begin troubleshooting?

- ☐ Hard drive S.M.A.R.T. data
- ☐ Event Viewer
- ☐ Device Manager
- ☐ BIOS settings
- ☐ Performance Monitor

Question 45

Which of the following Ethernet cables would BEST support an application that requires a 600Mbps throughput at the lowest price point?

- ☐ Cat 3
- ☐ Cat 5
- ☐ Cat 5e
- ☐ Cat 6

Question 46

A workstation was just moved to a new work location without a surge protector. It was working the day before, but now the PC will not power on, the fans will not spin, and there are no signs of activity. Which of the following should the technician do FIRST?

- ☐ Check the power cable connection
- ☐ Check the voltage of the PSU with a tester
- ☐ Test for distended capacitors
- ☐ Check the voltage switch

Question 47

A technician wants to block remote logins to a server. Which of the following ports should be blocked?

- ☐ 21
- ☐ 23
- ☐ 80
- ☐ 443

Question 48

A systems administrator wants to take advantage of the benefits of the major cloud providers while retaining some data and services in the local datacenter.

Which of the following types of cloud model should the administrator consider?

- ☐ Public
- ☐ Private
- ☐ Hybrid
- ☐ Community

Question 49

Which of the following technologies can be used for wireless payments?

- ☐ NFC
- ☐ Bluetooth
- ☐ IR
- ☐ LTE

Question 50

A user logs on a PC and receives a message stating there is a duplicate IP address on the network. After a system restart, the user notices the same error.

Which of the following is the MOST probable cause of the error?

- ☐ The user is still logged into another device.
- ☐ The user has set a static IP address.
- ☐ The user has moved to a different office.
- ☐ The user has wireless and wired connections.

Question 51

An ISP has notified a SOHO user of a usage increase on the user's network. The user is concerned the WiFi network is being utilized by unauthorized users. Which of the following would minimize the unauthorized use of the WiFi network?

- ☐ Implement MAC filtering
- ☐ Enable NAT
- ☐ Create a network DMZ
- ☐ Upgrade the encryption standards

Question 52

Which of the following Internet connection types often terminates at a switching center and then requires the use of a different media for the last mile to the customer?

- ☐ ISDN
- ☐ DSL
- ☐ Fiber
- ☐ Cable

Question 53

A network administrator would like to increase network bandwidth to 1Gbps between two office buildings that are 0.5mi(805m) apart. Which of the following would be the BEST solution?

- ☐ Fiber
- ☐ Coaxial
- ☐ Plenum
- ☐ Cat 6

Question 54

A business owner wants to provide security to laptop users with the ability to charge their devices, access corporate LAN resources, and allow for a variety of their removable hardware.

Which of the following devices would BEST meet the owner's needs?

- ☐ Docking station
- ☐ Port replicator
- ☐ Thunderbolt
- ☐ USB hub

Question 55

SIMULATION

Ann, a local librarian, has had a previously used wireless access point donated to her. She has instructed you to configure this new wireless access point for her public library. Ann plans to allow anyone to connect to the access point without having to ask her for configuration information. Additionally, Ann knows that her neighbors have wireless network and wants to ensure that her network has the least likelihood of interfering with the other networks. Ann has provided you with the following information.

Wireless Name: Library

New Router Password: Secure\$1

INSTRUCTIONS

Instructions: Select the Public Library in the diagram to configure the wireless network. Once the wireless network tabs are configured, select the save button. When you have completed the simulation, please, select the Done button to submit.

Configure Ann's wireless library network using the network adapter window.

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

Public Library



Wireless Network Name: **Default**
Security Mode: **Open**
Wireless Channel: **6**



Wireless Network Name: **MyWi**
Security Mode: **WEP**
Wireless Channel: **3**



Wireless Network Name: **PatsWiFi**
Security Mode: **WEP**
Wireless Channel: **5**

Library Wireless Configuration

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

Wireless Network Settings

Enable Wireless:

☒

Wireless Network Name:

Marketing

(Also called the SSID)

Wireless Channel:

3

1
2
3
4
5
6
7
8
9
10
11

Disable SSID Broadcast:

☒

802.11g Only Mode:

☐

Wireless Security Mode

Security Mode:

Enable WEP Wireless Security (basic)
Disable Wireless Security (not recommended)
Enable WEP Wireless Security (basic)
Enable WPA Wireless Security (enhanced)
Enable WPA2 Wireless Security (enhanced)

WEP

Default WEP Key:

WEP Key 1

WEP Key 1:

CAFE337100

WEP Key 2:

WEP Key 3:

WEP Key 4:

Save Settings

Library 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

☒	00:0A:BF:03:C4:54
☒	09:2C:D0:22:3F:11
☐	
☐	

Save Settings

Library Wireless Configuration

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

Please enter the same password into both boxes for confirmation.

Password:

Verify Password:

Save Settings

Question 56

Which of the following is the MOST likely cause for a network PC to have an APIPA address?

- ☐ DHCP failure
- ☐ DNS resolution
- ☐ Duplicate IP address
- ☐ Cleared ARP cache

Question 57

A technician is troubleshooting a WiFi issues with a laptop user in a corporate office. The user can connect to web pages without trouble; however, the user cannot connect to the email server or print a locally stored document to the network printer. The technician cannot ping the mail server or the network printer. No other users are experiencing this issue. Which of the following is MOST likely causing the issue?

- ☐ The laptop has an APIPA address
- ☐ The laptop is configured to the wrong default gateway
- ☐ The laptop is connected to the guest WiFi
- ☐ The laptop is configured with a static IP

Question 58

A user reports that a laptop is not connecting to the corporate wireless network. A technician confirms with a smartphone that the corporate wireless network is available and can be accessed. The technician observes that the Ethernet connection to the corporate network is working. The technician disconnects the Ethernet cable.

Which of the following should the technician do NEXT to troubleshoot this problem?

- ☐ Confirm that the laptop wireless card is turned on.
- ☐ Confirm that the laptop is in range for the access point.
- ☐ Confirm that the correct wireless network is selected.
- ☐ Confirm the user's network login ID and password.

Question 59

Which of the following services provides the ability to resolve UNC to appropriate IP addresses?

- ☐ DNS
- ☐ DHCP
- ☐ Proxy
- ☐ Web server

Question 60

A user reports that printing on heavy cardstock paper results in the image smearing if touched. When printing on plain paper, the problem does not occur.

Which of the following would be the NEXT troubleshooting step to perform?

- ☐ Increase the fuser temperature.
- ☐ Change the paper feed rate.
- ☐ Clean the transfer roller.
- ☐ Replace the toner cartridge.

Question 61

An administrator connects to the company's cloud account and builds a server that is hosted in the cloud. The server will be used as a confidential database server for one of the company's core applications. The administrator is responsible for patching and updating the server OS.

Which of the following cloud models is this an example of?

- ☐ IaaS
- ☐ SaaS
- ☐ PaaS
- ☐ Public

Question 62

A projector's image begins to flicker during a presentation. The laptop display does not produce this issue.

When a technician changes the resolution on the laptop, the issue persists. Which of the following is the NEXT step the technician should take?

- ☐ Check the connectivity of the VGA cable.
- ☐ Check the connectivity of the power cable.
- ☐ Change the aspect ratio on the laptop.
- ☐ Change the settings of the projector.

Question 63

Which of the following cloud computing concepts allows scalable services to be provided to the client?

- ☐ On-demand
- ☐ Metered
- ☐ Rapid elasticity
- ☐ Resource pooling

Question 64

Which of the following ports are used for secure sessions? (Select two.)

- ☐ 22
- ☐ 23
- ☐ 25
- ☐ 80
- ☐ 110
- ☐ 443

Question 65

Joe, a user, sets up an IMAP connection on his smartphone to connect to webmail. Joe is able to view email, but he receives an error message when trying to send a message. When viewing the mail client's configuration, Joe sees a valid SMTP server and port. Which of the following should Joe check NEXT to resolve the issue?

- ☐ Configure the email account as a POP3 connection
- ☐ Ensure the SSL/TLS option is being used
- ☐ Check that the account password is still valid
- ☐ Make sure the smartphone is not in airplane mode

Question 66

A customer accidentally drops a laptop while it is charging. The next day, the customer notices the laptop will not turn on and calls a technician to investigate. The technician confirms the laptop will not turn on even though it is connected to the power adapter.

Which of the following components is the MOST likely cause of this behavior?

- ☐ Power adapter
- ☐ Battery
- ☐ DC jack
- ☐ Hard drive

Question 67

A technician is determining the specifications for a desktop computer that will be used at trade shows all over the world. The computer will have the maximum amount of RAM. The CPU, GPU, and storage will be typical of a business workstation.

Which of the following system parameters is the MOST important for the technician to consider when choosing a power supply?

- ☐ Input voltage
- ☐ Efficiency rating
- ☐ 12V rail amperage
- ☐ Number of SATA connectors

Question 68

A user received the following error message while trying to access a shared drive: Network Path was Not Found. Which of the following should be performed to resolve the issue? (Select TWO).

- ☐ Set the NIC to full duplex.
- ☐ Disable the local firewall.
- ☐ Reset the TCP/IP stack.
- ☐ Disable the Ethernet adapter.
- ☐ Use static IP addressing instead of DHCP.
- ☐ Flush the DNS cache.

Question 69

Which of the following resources is the MOST critical when using cloud file-storage synchronization applications?

- ☐ Disk speed
- ☐ I/O bandwidth
- ☐ RAM utilization
- ☐ CPU utilization

Question 70

The cloud model that represents a company maintaining some data in on-premise storage and some data in cloud-based storage is known as:

- ☐ hybrid
- ☐ private
- ☐ public
- ☐ community

Question 71

In a virtual environment, which of the following allows all the VMs to have RAM allocated for use?

- ☐ Resource pooling
- ☐ Measured service
- ☐ Virtual application streaming
- ☐ Synchronization

Question 72

A user notices a laser printer is picking up multiple sheets of paper from one of its paper trays. The problem started last week and has gotten worse.

Which of the following is MOST likely the cause of this problem?

- ☐ Separation pad
- ☐ Feed roller
- ☐ Registration roller
- ☐ Duplex assembly

Question 73

A user's smartphone has been slow recently. A technician sees the phone was purchased two months ago, and it is top of the line. About a month ago, a new OS update was installed. To address the issue, the technician runs a hardware diagnostic on the device, and it reports no problems. Which of the following is MOST likely the cause of the performance issue on the device?

- ☐ Too many applications are running updates
- ☐ The device is currently running in airplane mode
- ☐ The internal memory is failing on the device
- ☐ The OS update is too resource intensive for the device

Question 74

The graphics department has an issue with printing certain files. The printer does not print the complete image on larger files. A technician verifies the network speed of the printer is set to 1GB and that regular text files print without issue. Which of the following is the MOST likely cause of this problem?

- ☐ The printer needs more RAM
- ☐ The print server is timing out
- ☐ The users are not printing in post-script mode
- ☐ The printer network connection is set to half duplex

Question 75

A technician is configuring a new web server and must have over 10TB of fault-tolerant storage, while minimizing the number of failure points. The applications on the server also require the highest performance available. Which of the following configurations would the technician MOST likely select?

- ☐ RAID 0 with 1500rpm 15TB drives
- ☐ RAID 1 with 1000rpm 8TB drives
- ☐ RAID 5 with 7200rpm 5TB drives
- ☐ RAID 10 with 5400rpm 6TB drives

Question 76

A technician receives a cellular call from a manager. The technician is instructed to download a service manual directly from the Internet to a laptop. However, there is no WiFi signal or wired Ethernet. Which of the following would be the MOST appropriate connections for the technician to use?

- ☐ Hotspot
- ☐ NFC
- ☐ Bluetooth
- ☐ VPN

Question 77

Which of the following charging and data ports has a non-directional connector?

- ☐ Micro-USB
- ☐ Mini-USB
- ☐ USB-A
- ☐ USB-C

Question 78

Which of the following is the main purpose of the +5VSB output of a power supply?

- ☐ It allows peripherals to draw power when the machine is off
- ☐ It provides power to the audio and sound boards of the machine
- ☐ It acts as the main voltage supply to the motherboard and processor
- ☐ It powers all expansion cards and external device hubs

Question 79

Which of the following connector types is MOST appropriate to use to connect a SOHO cable modem to the ISP?

- ☐ DB-9
- ☐ RJ-45
- ☐ RG-59
- ☐ RS-232

Question 80

A user is having a problem with printing a specific document type.

The network printer OCP shows that the printer is online with no errors. Other users are not having the same issue. The user sends the document to another printer and the document prints.

Which of the following should a technician do FIRST in troubleshooting the problem?

- ☐ Stop and restart the PC print spooler service.
- ☐ Verify the user is sending the document to the correct printer queue.
- ☐ Have each user send the same document to the correct printer queue.
- ☐ Stop and restart the print server queues, and then have the user resend the document.

Question 81

A technician needs to call a user's cellular provider to troubleshoot a network speed issue with the user's mobile device. Which of the following technologies is the technician troubleshooting?

- ☐ Long-term evolution
- ☐ Near-field communication
- ☐ Radio frequency ID
- ☐ Z-wave

Question 82

A technician is troubleshooting what appears to be a RAM issue on a PC. Which of the following symptoms would indicate if this is a RAM issue?

- ☐ POST code beeps
- ☐ Distended capacitors
- ☐ Continuous reboots
- ☐ Wrong BIOS time

Question 83

Ann, a user, needs to attend several day-long conferences and wants to ensure her mobile device will have enough power for these events. She is concerned about wall outlet availability at the conferences and needs to continuously use her device for important updates.

Which of the following should a technician recommend to BEST accommodate Ann's needs?

- ☐ Wireless charging pad
- ☐ Built-in battery case
- ☐ Extra charging cords
- ☐ Airplane mode

Question 84

Joe, a user, wants his desktop RAID configured to allow the fastest speed and the most storage capacity. His desktop has three hard drives. Which of the following RAID types should a technician configure to achieve this?

- ☐ 0
- ☐ 1
- ☐ 5
- ☐ 10

Question 85

Which of the following is designed to function BEST in harsh lighting conditions?

- ☐ Large tablet
- ☐ E-reader
- ☐ Smart watch
- ☐ Virtual reality headset

Question 86

Which of the following would provide power to an access point?

- ☐ POE injector
- ☐ Switch
- ☐ Repeater
- ☐ Modern

Question 87

A systems administrator receives a notification from the RAID controller that the RAID 5 array is degraded. Upon logging into the server, the administrator sees that on local disk 0, physical disk 2 has failed. Which of the following is the BEST course of action to take to resolve the problem?

- ☐ Schedule system downtime and replace physical disk 2. Wait until the array is rebuilt and confirm in the RAID controller that the system is no longer degraded.
- ☐ Immediately replace physical disk 2. Wait until the array is rebuilt and confirm in the RAID controller that the system is no longer degraded.
- ☐ Delete logical disk 0 and manually configure a new RAID array only using the known-good working drives. Wait until the array is rebuilt and confirm in the RAID controller that the system is no longer degraded.
- ☐ In the controller, convert the RAID 5 array to RAID 0 array to avoid system downtime. Wait until the array is rebuilt and confirm in the RAID controller that the system is no longer degraded.

Question 88

A network administrator is attempting to access the firewall while inside the datacenter. Which of the following peripherals must be connected to do so?

- ☐ KVM
- ☐ Touchpad
- ☐ Mouse
- ☐ Keyboard

Question 89

SIMULATION

You need to configure your mobile device to send and receive electronic messages from your company.

You must use the company's WLAN as all e-mail services are on default non-secure ports.

The company's WLAN is broadcasting across the company for easier access. Both incoming and outgoing servers require login credentials.

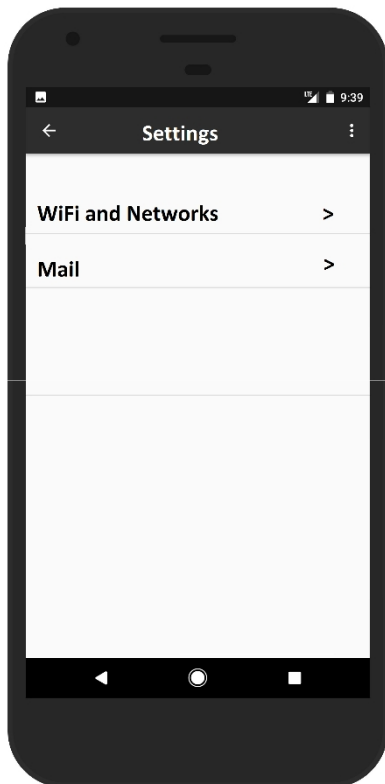
Use the following parameters:

- Email address tech@techies.com
- Password P@SSwOrd
- Pop techies.com Port 110 Security: None
- IMAP techies.com Port 993 Security SSL
- smtp.techies.com Port 465 Security: TLS
- Company SSID Techies
- Security WPA2
- Passphrase P@SSwOrd
- SSID is not broadcasted

INSTRUCTIONS:

Update the mobile device's parameters to fit the criteria.

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



Question 90

An end user is unable to connect to the network, and a technician has visually verified the lights on the back of the PC are active and there is no physical damage to the Ethernet jack. Which of the following tools should the technician use to continue troubleshooting the connection?

- ☐ Punchdown tool
- ☐ Tone generator and probe
- ☐ Cable tester
- ☐ Crimper

Question 91

Which of the following connector types can be plugged into a device both right-side up and upside down?

- ☐ USB
- ☐ USB-C
- ☐ Mini-USB
- ☐ Micro-USB

Question 92

DRAG DROP

Drag each mobile technology to the description of its use. Some answers will not be used.

Description	Wireless technology
Devices use haptic confirmation for sharing data wirelessly.	NFC
Devices are paired using a code for sharing data wirelessly.	Hotspot
Devices are placed in close proximity within line of sight for sharing data wirelessly.	IR
Devices are connected via a wire for sharing data or connectivity.	Tethering
	Bluetooth
	Cellular
	Lightning

Question 93

A user has reported application connectivity problems to the network administrator. The network administrator knows there have been firewall configuration changes recently by a security vendor and believes the issue could be related to a port being closed on the firewall. Which of the following should the network administrator do NEXT?

- ☐ See if the same application fails on another workstation
- ☐ Go into the firewall and open the port
- ☐ Verify system functionality on the user's workstation
- ☐ Document the issue for future reference

Question 94

Which of the following connector types is used to terminate household telephone cabling?

- ☐ RG-6
- ☐ RJ-11
- ☐ RJ-45
- ☐ RG-59

Question 95

An end user reports a printer error that states “Replace filament”. With which of the following types of printer is the end user MOST likely having problems?

- ☐ Ink jet
- ☐ Laser
- ☐ 3-D
- ☐ Thermal

Question 96

A client brings in a smartphone with a cracked screen to be repaired. During the repair process, the technician places the screws in a small container to prevent losing them. The technician tests the replacement screen to ensure it works properly before closing the device. Once the device is back together, however it does not power on.

- ☐ Label the locations of the screws.
- ☐ Refer to manufacturer resources.
- ☐ Document the orientation of the cables.
- ☐ Use the appropriate hand tools.

Question 97

Which of the following features will save the battery life of a laptop significantly if they are disabled? (Choose two.)

- ☐ Touchpad
- ☐ Volume
- ☐ Screen orientation
- ☐ Cellular
- ☐ Bluetooth
- ☐ Fingerprint reader

Question 98

A customer has two 8GB sticks of 2400-speed DDR4 installed in slots 1 and 2 of a computer and wants to add more RAM. The customer purchases two additional 4GB sticks of 3200-speed DDR4 and installs them in slots 3 and 4. While installing the RAM into the board, the user notices the board has “quad channel” etched near the RAM slots.

Which of the following can be said about the user’s channel configuration after upgrading the RAM?

- ☐ The computer is utilizing one channel.
- ☐ The computer is utilizing two channels.
- ☐ The computer is utilizing three channels.
- ☐ The computer is utilizing four channels.

Question 99

SIMULATION

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 simulation, 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

Please enter the same password into both boxes for confirmation.

Password:

Verify Password:

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

☐☐☐☐

Question 100

A technician is setting up a new SOHO router for a home user. The user has a media server to be accessible from the Internet while the user is traveling.

Which of the following should the technician configure to allow access to the server from the Internet?

- ☐ Port forwarding
- ☐ NAT
- ☐ MAC filtering
- ☐ QoS

Question 101

A user is experiencing issues synchronizing a smartphone. The user is able to connect to individual services, but each requires a different password. Which of the following needs to be configured to allow the user to access web services securely with a unique password?

- ☐ SIM
- ☐ SMB
- ☐ SSL
- ☐ SSO

Question 102

A bank employee contacts the help desk for assistance with setting up a new computer. Which of the following peripherals will the technician MOST likely install alongside the device? (Choose two.)

- ☐ Magnetic reader
- ☐ Signature pad
- ☐ Flatbed scanner
- ☐ Web camera
- ☐ External storage drive

Question 103

A technician is replacing the LCD panel in a laptop. Which of the following components is MOST likely to be damaged accidentally during the repair?

- ☐ Bezel
- ☐ Hinge
- ☐ Motherboard
- ☐ Digitizer

Question 104

A company has very strict rules regarding proprietary information leaving the premises. All computers host proprietary information. A technician is called to repair a computer on-site at the company's corporate office. The technician identifies the problem and goes through the troubleshooting steps to create a plan of action. The technician determines the computer needs to be taken off-site for repair.

Which of the following should the technician do NEXT?

- ☐ Check corporate policies for guidance.
- ☐ Get authorization from the manager.
- ☐ Delete proprietary data before leaving the building.
- ☐ Remove the HDD and send the device for repair.

Question 105

Which of the following IEEE 802.11 standards includes the use of MIMO technology?

- ☐ 802.11a
- ☐ 802.11b
- ☐ 802.11g
- ☐ 802.11n

Question 106

A technician needs to give users the ability to transfer files between mobile devices. The technician teaches the staff how to use a file transfer method in which the devices need to be in close proximity with line-of-sight access to each other. Which of the following technologies is the technician teaching to the staff?

- ☐ IR
- ☐ Bluetooth
- ☐ Tethering
- ☐ NFC

Question 107

A SOHO user wants a multifunction device to be set up for the office printer. Additionally, scanning and fax capability must be set up for office employees only. Guest WiFi access will open.

Which of the following configuration changes will BEST meet the user's request? (Choose two.)

- ☐ Enable user authentication.
- ☐ Disable remote printing.
- ☐ Configure the print server.
- ☐ Enable cloud settings.
- ☐ Disable the wireless network.
- ☐ Connect to a wired network.

Question 108

A technician is setting up a Windows mobile device for a user who had trouble reading text on a previous device, especially at night.

Which of the following adjustments would be MOST appropriate?

- ☐ Use the magnifier.
- ☐ Increase the resolution.
- ☐ Use haptic feedback.
- ☐ Utilize text-to-speech.

Question 109

A technician is setting up a VM for use in testing software deployments. The VM is offline, but the hypervisor is not.

Which of the following settings should the technician change to resolve this issue?

- ☐ Virtual security
- ☐ Virtual storage
- ☐ Virtual CPU
- ☐ Virtual switch
- ☐ Virtual RAM

Question 110

A printer stops working in the billing department and cannot be repaired. A new printer has been ordered and a technician is tasked with allowing other users to print to the billing manager's printer until the new printer arrives. The manager's printer is currently used via USB connection, and there are no network jacks available for use.

Which of the following is the BEST way for the technician to allow access to the printer?

- ☐ Create a share on the manager's computer and give the users rights to the share.
- ☐ Install the printer on the users' desktops and point it to the IP address of the manager's computer.
- ☐ Purchase a wireless printer so the users can access the printer via network.
- ☐ Provide flash drives to the users so they can transfer data to the manager's computer for printing.

Question 111

A user reports a laserjet printer is not printing properly. A technician prints a test page and notices the toner is smeared on the page. The technician confirms the toner cartridge is installed correctly and the paper in the tray is the right size. Which of the following printer components is the MOST likely cause of the problem?

- ☐ Fuser
- ☐ Roller
- ☐ Memory
- ☐ Toner

Question 112

A user calls the help desk stating a laptop is performing slowly and the hard drive activity lights are blinking continuously. A technician checks for enough hard drive space, disables antivirus and indexing services, and runs a full-system diagnostics check, which returns no failure. Which of the following should the technician do NEXT?

- ☐ Install a new hard drive
- ☐ Check for hard-drive firmware updates
- ☐ Replace the hard drive with a solid state drive
- ☐ Configure the laptop in high-performance mode
- ☐ Change the boot order in the system BIOS

Question 113

A technician has been informed that multiple users are receiving duplicate IP address warnings on their workstations, and they are unable to browse the Internet.

Which of the following server types should the technician log in to in order to resolve the problem?

- ☐ DNS server
- ☐ DHCP server.
- ☐ Proxy server
- ☐ RADIUS server

Question 114

An employee's mobile device no longer charges, and the employee believes the battery is bad. A technician tests the mobile device and finds it will charge on a wireless charging pad but not when it is connected to a charging cable. Other devices charge without issue when the cable is used. Which of the following should the technician perform FIRST to resolve the issue?

- ☐ Clean out the charging port on the device
- ☐ Replace the mobile device's battery
- ☐ Issue a new charging cable to the employee
- ☐ Send the device for service and give the employee a loaner

Question 115

A user is no longer able to browse the Internet after returning from vacation. The user is able to log in and navigate to the local intranet, but not to any outside sites. A technician pings a well-known website by name but gets no reply. The technician then pings its IP address and gets a reply.

Which of the following commands will MOST likely resolve the issue?

- ☐ ipconfig /all
- ☐ ipconfig /flushdns
- ☐ ipconfig /release
- ☐ ipconfig /setclassid

Question 116

Several company users are frequently forgetting passwords for their mobile devices and applications.

Which of the following should the systems administrator do to reduce the number of help desk tickets submitted?

- ☐ Implement single sign-on.
- ☐ Enable multifactor authentication.
- ☐ Configure biometric authentication.
- ☐ Remove complex password requirements.

Question 117

A user purchases a wireless printer and sets it up in an office. The user installs all necessary software for the printer on the computer and connects the printer to the guest wireless network. However, when the user attempts to print to the printer, nothing happens.

Which of the following will resolve the issue?

- ☐ Set up the user's computer to act as a print server.
- ☐ Configure the printer to use the Internet printing protocol.
- ☐ Ensure the user's computer is set to DHCP.
- ☐ Connect the printer to the company wireless network.

Question 118

Which of the following server types caches previously visited web pages for faster access in the future?

- ☐ Proxy server
- ☐ Web hosting server
- ☐ DNS server
- ☐ Branch cache server

Question 119

A user connects a laptop to a docking station but is unable to see an image on the external monitor. The user tests the docking station USB ports, and they are working fine. Which of the following should be done NEXT?

- ☐ Check for firmware updates
- ☐ Configure extended display mode
- ☐ Replace the external monitor
- ☐ Adjust the laptop's BIOS settings

Question 120

Which of the following devices performs forwarding decisions based on MAC addresses?

- ☐ Switch
- ☐ Router
- ☐ Hub
- ☐ Repeater

Question 121

The touch-screen feature on a Windows device has stopped working.

Which of the following should the technician check FIRST?

- ☐ Device Manager
- ☐ Performance Monitor
- ☐ System configuration
- ☐ Digitizer settings

Question 122

A technician has been asked to fix a problem with a projector. The projector lamp turns off for brief periods during a demonstration. After the technician replaced the lamp, the problem continued with an added message that appears just before the lamp turns off. Which of the following MOST likely need to be performed? (Choose two.)

- ☐ Reset the lamp life counter
- ☐ Replace the cooling fan
- ☐ Adjust the brightness
- ☐ Update the laptop video driver
- ☐ Install a higher lumen lamp
- ☐ Change the video resolution

Question 123

A technician is upgrading a user's smartphone and wants to move all of the applications and contact information quickly to the new device.

Which of the following connection types would work BEST to do this?

- ☐ NFC
- ☐ IR
- ☐ OTG
- ☐ Bluetooth

Question 124

Which of the following connects a PC to its default gateway?

- ☐ NIC
- ☐ Switch
- ☐ Router
- ☐ Cable modem

Question 125

A user accidentally spills liquid on a laptop. The user wants the device to be fixed and would like to know how much it will cost.

Which of the following steps should the technician take NEXT to verify if the device is repairable before committing to a price? (Choose two.)

- ☐ Remove the case and organize the parts.
- ☐ Document the screw locations.
- ☐ Search the Internet for repair tutorials.
- ☐ Consult colleagues for advice.
- ☐ Place the device in rice for a few days.

Question 126

A shipping department is having problems with its thermal label printer. Two columns on the left are not appearing on all labels. Which of the following should a technician do FIRST?

- ☐ Verify the ribbon is correctly aligned to the label
- ☐ Run a label calibration
- ☐ Remove stuck labels from the print path
- ☐ Replace the print head

Question 127

A technician has noticed that when at company headquarters the laptop connection to the Internet is more responsive than when using the company-provided phone as a hotspot. The technician updated the drivers on the WiFi NIC without resolution and then verified the configuration on the WiFi was correct.

Which of the following configurations could cause the decreased performance?

- ☐ The connection is throttled.
- ☐ There is a low RFID signal.
- ☐ SSID is not found.
- ☐ It is out of range.

Question 128

Ann, a user, reports that after setting up a new WAP in her kitchen she is experiencing intermittent connectivity issues. Which of the following should a technician check FIRST?

- ☐ Channels
- ☐ Frequency
- ☐ Antenna power level
- ☐ SSID

Question 129

An analyst asks a technician to recommend a solution for a customer in the software development industry, where the customer can test a variety of OSs running the various applications that the customer produces. The customer wants to minimize the investment in hardware.

Which of the following solutions should the technician recommend to BEST meet the customer's requirement?

- ☐ Purchase a number of low-cost devices, installing the required OSs and applications on each one. Use separate machines for each testing environment.
- ☐ Purchase a high-end system meeting the hardware requirements for all of the individual OSs and applications. Configure a VM for each testing environment.
- ☐ Purchase one computer and create images for each computer configuration and OS. Re-image the machine for each testing environment.
- ☐ Purchase a number of computers, installing a VM on each one. Configure each VM with an OS for the testing environment.

Question 130

A user is connected to a docking station with an optical drive and is trying to back up personal files to removable media, but is encountering write errors. Which of the following is MOST likely cause of the errors?

- ☐ The disk has already been finalized
- ☐ The files are encrypted
- ☐ There is a corrupt file on the hard drive
- ☐ The files are not compatible with the type of disk used

Question 131

A technician is troubleshooting a Windows CAD workstation that is running slow. The computer uses RAID 10 and has dual GPU cards. The user states that the same application runs faster on an identical workstation.

Which of the following should the technician perform FIRST to troubleshoot the problem?

- ☐ Replace the write cache battery.
- ☐ Check the event log for any cache issues.
- ☐ Clear the RAID configuration file and restart the PC.
- ☐ Replace the RAID controller write cache module.

Question 132

A user sets up a cable modem at home and connects the modem to the ISP at the cable company. Which of the following network types does this connection describe?

- ☐ WAN
- ☐ LAN
- ☐ PAN
- ☐ MAN

Question 133

A technician is configuring a high-performance workstation. The technician needs to choose storage for the boot drive with the highest performance possible. Which of the following drive types BEST meets this requirement?

- ☐ MicroSD
- ☐ 15K rpm
- ☐ NVMe
- ☐ USB flash

Question 134

A server needs a RAM upgrade, and a technician has been tasked with retrieving the RAM from storage and then installing it.

Which of the following is the BEST RAM type for the technician to retrieve?

- ☐ SoDIMM
- ☐ DDR4
- ☐ Single channel
- ☐ ECC

Question 135

Which of the following peripheral types is MOST likely to be used to input actions into a PC?

- ☐ Webcam
- ☐ Mouse
- ☐ Monitor
- ☐ Optical drive

Question 136

Whenever a user's machine is turned on, a black screen appears prompting the user for an administrative password. The technician has no such password on file for this machine.

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

- ☐ Press and hold the CPU power button for five seconds, and then power back on.
- ☐ Disconnect and reconnect the internal hard drive.
- ☐ Remove the CMOS battery and reinsert it after ten seconds.
- ☐ Remove the motherboard and place it back into the machine after ten minutes.

Question 137

A customer wants to purchase a new home computer. The machine will mainly be used for Internet browsing and streaming video, except on weekends when the customer's son will use it to play games with friends.

Which of the following should the technician focus on to meet these requirements? (Choose two.)

- ☐ 80mm case fans
- ☐ Four-core processor
- ☐ RAID 5 array
- ☐ 16GB DDR2 memory
- ☐ Dual monitors
- ☐ Encrypted hard drive

Question 138

Which of the following devices can be used to connect multiple devices within a network without broadcasting to every network port?

- ☐ Unmanaged switch
- ☐ Hub
- ☐ Firewall
- ☐ Cable modem

Question 139

A technician is setting up a WiFi-enabled thermostat for a customer, but the customer is concerned about IoT devices getting hacked.

Which of the following BEST address the customer's concerns? (Choose two.)

- ☐ Use the latest encryption standard on the wireless network and set a strong password.
- ☐ Enable two-factor authentication for the IoT device's cloud account, if it is available.
- ☐ Separate the IoT thermostat by segregating it in a DMZ network.
- ☐ Disable wireless access on the thermostat to make it unshakable.
- ☐ Upgrade the customer's router to the latest version to improve network security.
- ☐ Upgrade the customer's wireless network encryption to WPA.

Question 140

Virtual machines hosted in the cloud that are used by developers to code applications are an example of:

- ☐ FaaS
- ☐ BaaS
- ☐ PaaS
- ☐ SaaS
- ☐ IaaS

Question 141

An employee's laptop will not power on. When the power button is pressed, the power light goes on and then suddenly off. A technician replaces the battery, and the laptop powers on. The employee works without issues until the end of the day, but the laptop presents the same problem the next morning.

Which of the following is the MOST probable cause of the issue?

- ☐ Swollen battery
- ☐ Damaged AC adapter
- ☐ Improperly seated RAM
- ☐ Cooling fan failure
- ☐ Imminent hard drive failure

Question 142

A technician is replacing a broken screen on a new company laptop but does not have repair information from the vendor.

Which of the following is the BEST way to proceed?

- ☐ Document and label the cable and screw locations.
- ☐ Replace the screen with a non-OEM.
- ☐ Update the firmware on the device before repairing it.
- ☐ Wait for the vendor to provide more information.

Question 143

A technician replaced a broken LED screen on a mobile computer. The operating system can be seen perfectly on screen, but the touch screen is non-responsive.

Which of the following are the MOST probable root causes for the given failure? (Choose three.)

- ☐ The hardware replacement used is a non-touch-screen version.
- ☐ The touch screen must be calibrated after a replacement.
- ☐ The digitizer cable is not seated properly on the motherboard.
- ☐ The new touch-screen drivers must be installed.
- ☐ The replacement part is dead-on-arrival.
- ☐ The LCD panel firmware must be updated.
- ☐ The grounding screws are not securely attached.

Question 144

A technician upgraded the memory on a server from two 8GB sticks to eight 32GB sticks. The server memory is now at full capacity per the user guide. When the technician powers on the system, only 128GB of memory is recognized by the OS and the BIOS. The technician decides to upgrade to the latest version of the firmware on the system, which does not help. Next, the technician installs the memory in sets of 64GB at a time. Each individual set of 64GB is fully recognized by the server.

Which of the following will not allow the server to recognize all of the memory installed at the same time?

- ☐ The power supply is not supplying enough power for the memory.
- ☐ The memory has too many ECC errors and is shutting down
- ☐ The server is overheating when all of the memory is installed.
- ☐ The server needs DDR4 memory, and DDR3 is installed.

Question 145

A server administrator set up a VM to be used in a lab setting. A technician is setting up thin-client computers to access this VM. Which of the following tasks are required to complete the project? (Choose three.)

- ☐ Connect the device to a printer.
- ☐ Install the operating system.
- ☐ Install a USB keyboard and mouse.
- ☐ Connect the device to the network.
- ☐ Install the latest system updates.
- ☐ Install the latest device drivers.
- ☐ Connect the device to a monitor.
- ☐ Install the necessary applications.

Question 146

The ability for new computers to be automatically connected to the network is provided by the:

- ☐ DHCP server
- ☐ DNS server
- ☐ proxy server
- ☐ TACACS server

Question 147

A user is experiencing email problems and explains to a technician that all emails with graphics or images do not display the graphics.

Which of the following configurations would correct this behavior?

- ☐ Change the email settings in antivirus.
- ☐ Change the security settings of the email client.
- ☐ Change the firewall security settings.
- ☐ Change the email proxy settings.
- ☐ Change the trusted sites in the browser settings.

Question 148

A customer is using a cloud storage program that maintains a copy of local files on the cloud storage servers. The WiFi network is not very fast, and the customer uses bandwidth-intensive video streaming all day. Which of the following parameters should be adjusted to keep the cloud storage program from using too much bandwidth?

- ☐ Synchronization settings
- ☐ Wireless settings
- ☐ Video streaming settings
- ☐ QoS settings

Question 149

A network administrator must install a device that will proactively stop outside attacks from reaching the LAN.

Which of the following devices would BEST meet the organization's needs?

- ☐ IPS
- ☐ IDS
- ☐ Proxy server
- ☐ Authentication server

Question 150

A technician is hired to install network cable in a crawl space running the length of a hallway. To do so without a fire code violation, which of the following types of cable should the technician run?

- ☐ Plenum
- ☐ Fiber
- ☐ Shielded
- ☐ Coaxial

Question 151

A user wants to build a computer with a high-end CPU, plenty of RAM, and a high-end graphics card for online gaming. The user wants to verify that the graphics card is compatible with the motherboard. Which of the following connection types would the user MOST likely utilize to connect the video card to the motherboard?

- ☐ PCIe
- ☐ ISA
- ☐ AGP
- ☐ USB

Question 152

A company offers several out-of-the-box computer configurations to its clients. A client requests several new computers for its newest location, which will be used by guests to check in upon arrival and fill out contact information. Which of the following configurations would BEST fit this customer's needs?

- ☐ Touch-screen kiosk
- ☐ Thick client
- ☐ CAD workstation
- ☐ Virtualized host computer

Question 153

An office has a network that has all computers connected to two switches. The switches are connected with a fiber cable. The computers and switches are all located in the same building. Which of the following network types does this describe?

- ☐ WAN
- ☐ PAN
- ☐ LAN
- ☐ MAN

Question 154

A corporation maintains an active social media presence by constantly uploading audio and video. The corporation also regularly hosts video conferences, but attendees are reporting buffering during their telecast.

Which of the following should the IT department do to improve the ability to attend video conferences without interruption?

- ☐ Enable QoS on network traffic, prioritizing telecast traffic over uploads.
- ☐ Upgrade video conference room equipment.
- ☐ Create a VLAN for all employees updating social media.
- ☐ Adjust the network intrusion device to allow video to flow without filtering.

Question 155

Which of the following requires less current to provide the same amount of power to devices inside a PC?

- ☐ 5.5V
- ☐ 12V
- ☐ 120V
- ☐ 220V

Question 156

Joe, a user, has purchased a new mobile device that uses a different OS than his previous one. Joe wants to copy his contacts and appointments from his corporate account without entering them manually.

Which of the following would be the BEST way for a technician to assist Joe?

- ☐ Log into the same email provider on the new device, and restore the contacts and dates.
- ☐ Create a Bluetooth connection between Joe's devices, and copy his contacts and calendar.
- ☐ Back up the old mobile device to a PC, and import the contacts and schedule from the PC.
- ☐ Use NFC to transfer all compatible data from one device to the other.

Question 157

Which of the following devices can utilize VLANs to secure networks?

- ☐ Switch
- ☐ Hub
- ☐ Repeater
- ☐ Bridge

Question 158

Which of the following terminates a coaxial cable?

- ☐ DB9
- ☐ RJ45
- ☐ RG-59
- ☐ RS-232

Question 159

An end user has signed up to use a web-based calendar application.

Which of the following solutions has the user purchased?

- ☐ DaaS
- ☐ SaaS
- ☐ PaaS
- ☐ IaaS

Question 160

Which of the following peripherals would a company use to take inventory quickly and update price tags for products? (Choose two.)

- ☐ Barcode scanner
- ☐ Label printer
- ☐ Magnetic reader
- ☐ KVM switch
- ☐ NFC device
- ☐ Flatbed scanner

Question 161

Joe, a user, reports that his new smart wearable device is not synchronizing to his mobile device. Both devices are powered on, but the mobile device fails to read the data from the wearable. Which of the following will MOST likely fix this issue?

- ☐ Pair the devices
- ☐ Set the SSID
- ☐ Update the smart wearable device firmware
- ☐ Enable NFC

Question 162

A technician is building a CAD workstation for a user who will be saving files remotely.

Which of the following components are MOST important to include when configuring the system? (Choose two.)

- ☐ Gigabit NIC
- ☐ Graphics card
- ☐ Liquid cooling unit
- ☐ HDD size
- ☐ RAM

Question 163

A customer wants to upgrade a PC's internal storage to have more room to store backups, photos, and videos. The new storage should be large enough to avoid expanding again next year.

Which of the following BEST meets these needs?

- ☐ 3TB HDD
- ☐ 50GB NAS
- ☐ 500TB SAN
- ☐ 512GB SSD

Question 164

A network administrator is troubleshooting a notebook that is not loading the local Windows 10 operating system. All the computers inside the company are installed using UEFI mode selected. The message on the screen shows a failed attempt to connect to a PXE server. When requested, the end user reported trying to improve the computer's speed by changing some BIOS configurations randomly. Which of the following should the network administrator check FIRST inside BIOS?

- ☐ C-states should be configured to 2
- ☐ Secure Boot should be enabled
- ☐ Wake-on-LAN should be unchecked
- ☐ The PXE server address should be set

Question 165

A technician is setting up a printer for a small office that does not have an RJ-45 jack. The users' computers are all in the same workgroup and are connected physically to the same network switch. The technician needs to make sure all users can print to the new printer through the switch. Which of the following should the technician configure?

- ☐ Shared printer
- ☐ Print server
- ☐ Bluetooth printing
- ☐ Cloud printing

Question 166

Which of the following cable types should be used to connect a cable modem to a SOHO router?

- ☐ Thunderbolt
- ☐ Coaxial
- ☐ USB
- ☐ Ethernet

Question 167

A user notices the system clock is changed every morning. The computer is shut down daily. A technician checks the time zone and finds it is correct, and then checks the BIOS settings and finds the time to be incorrect.

Which of the following is MOST likely the problem?

- ☐ The CMOS battery does not have a charge.
- ☐ Daylight savings time is not enabled.
- ☐ BIOS time is set to Universal Time Coordinated.
- ☐ The NTP server has gone offline.

Question 168

A technician configures a new printer to be accessible via a print server. After setting up the printer on a Windows client machine, the printer prints normally. However, after setting up the printer on a macOS client machine, the printer only prints garbled text. Which of the following should the technician do to resolve this issue?

- ☐ Add a macOS-compatible print driver to the printet object on the print server.
- ☐ Configure the Windows client to share the printer with the macOS client.
- ☐ Set the printer on the macOS client to connect to the print server via IPv6.
- ☐ Ensure the network time of the macOS client matches that of the print server.

Question 169

During an inspection, it was found that data racks were not properly grounded. To pass the inspection and address a growing concern to protect data cabling and equipment, a technician must make sure all racks are properly grounded.

Which of the following tools should the technician use to verify this has been completed?

- ☐ Multimeter
- ☐ Cable tester
- ☐ Tone generator
- ☐ Voltmeter

Question 170

A customer's laptop display has suddenly become very dim. The image of the display can only be seen with a bright, external light, as adjusting the brightness/contracts controls does not cause much change.

Which of the following components MOST likely needs to be replaced?

- ☐ LCD panel
- ☐ Inverter
- ☐ Video card
- ☐ Digitizer

Question 171

A user is unable to access websites and has reported connectivity issues with pop-ups on the screen. A technician removes malware, and then is able to ping the router and access the websites.

Which of the following NEXT steps should the technician perform in troubleshooting this issue? (Choose two.)

- ☐ Document findings, actions, and outcomes.
- ☐ Reboot the device to verify the fix.
- ☐ Reconnect the device to the network.
- ☐ Verify the settings in IPConfig.
- ☐ Research the problem based on symptoms.
- ☐ Run a virus scan.

Question 172

Which of the following wireless standards is only capable of 5GHz frequencies?

- ☐ 802.11a
- ☐ 802.11ac
- ☐ 802.11b
- ☐ 802.11g

Question 173

A technician is setting up a new wireless network at a branch office that previously had only wired connectivity with statically assigned IP addresses. After setting up the network, the technician configures a server to provide IP addresses to wireless clients. During testing, the technician is unable to access the Internet or named network resources. The technician receives a valid IP address from the DHCP server and can ping the default gateway.

Which of the following should be technician check NEXT to resolve this issue?

- ☐ Ensure the options are configured to provide a DNS server.
- ☐ Verify the Windows Firewall is turned off.
- ☐ Configure the wireless network's SSID to be hidden.
- ☐ Enable file and printer sharing in the OS.