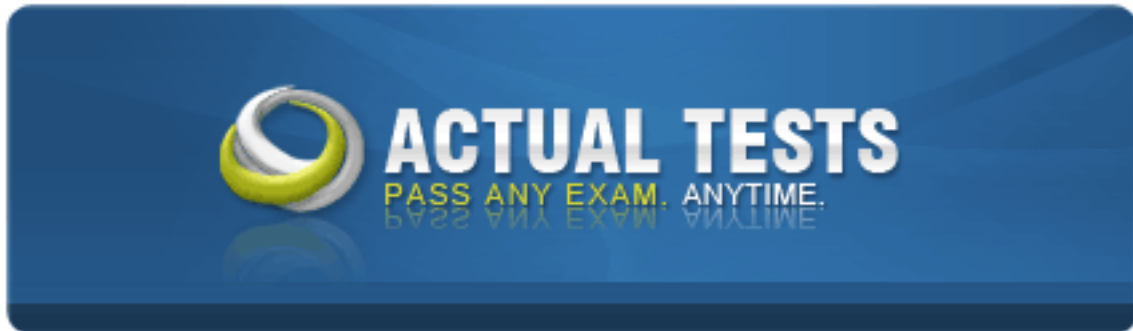


CompTIA JK0-019



CompTIA E2C Network + Certification Exam

Version: 19.1

Topic 1, Networking Concepts

QUESTION NO: 1

A user's laptop is unable to keep a stable network connection. Which of the following measures would MOST likely need to be configured?

- A. SSID name
- B. WAP encryption strength
- C. WAP radio power
- D. Channel overlay

Answer: C

Explanation: WAP radio power is the signal strength through which you can specify the range from which you can stay connected to the network and access internet. Here, when the user is not able to maintain a stable connection then it is a problem with the signal strength for sure so you can try to increase the signal strength by increasing the radio power.

QUESTION NO: 2

The Network Interface Layer of the TCP/IP model corresponds to which of the following layers of the OSI model? (Select TWO).

- A. Network
- B. Session
- C. Transport
- D. Physical
- E. Data link

Answer: D,E

Explanation:

The network layer is responsible for packet forwarding including routing through intermediate routers, whereas the data link layer is responsible for media access control, flow control and error checking.

QUESTION NO: 3

In which of the following layers of the OSI model would MAC addressing be found?

- A. Network
- B. Application
- C. Data Link
- D. Transport

Answer: C

Explanation:

The ITU-T G.hn standard, which provides high-speed local area networking over existing wires (power lines, phone lines and coaxial cables), includes a complete data link layer which provides both error correction and flow control by means of a selective repeat Sliding Window Protocol.

QUESTION NO: 4

Several users from the finance department report that they are able to access the Internet, but unable to connect to their financial applications. The network technician is unable to ping the finance server. The technician decides to check the switch and determines that Internet access is working. Which of the following is a possible cause of the access issues?

- A. Faulty cable
- B. Remote management disabled
- C. Improper VLAN assignment
- D. Mismatched duplex

Answer: C

Explanation: Finance Server is placed in same VLAN which is assigned to finance users if they are able to access internet that's means connectivity to switch is good, so we have to check the VLAN assigned to users.

QUESTION NO: 5

A technician needs to ensure that traffic from a specific department is separated within several switches. Which of the following needs to be configured on the switch to separate the traffic?

- A. Duplex settings
- B. SNMP string
- C. VLAN assignments
- D. Spanning tree

Answer: C

Explanation: A VLAN is a group of end stations with a common set of requirements, independent of physical location. VLANs have the same attributes as a physical LAN but allow you to group end stations even if they are not located physically on the same LAN segment.

QUESTION NO: 6

Given a subnet mask of 255.255.255.0, how many usable IP addresses would be in that subnet?

- A. 250
- B. 254
- C. 255
- D. 256

Answer: B

Explanation: The Subnet Mask however, determines the "class" of a Network. 255.255.255.0 is a "Class C" network. A class c network can host up to 254 pc's

QUESTION NO: 7

On which of the following OSI model layers would a MAC address be used?

- A. Network
- B. Data Link
- C. Transport
- D. Physical

Answer: B

Explanation:

The ITU-T G.hn standard, which provides high-speed local area networking over existing wires (power lines, phone lines and coaxial cables), includes a complete data link layer which provides both error correction and flow control by means of a selective repeat Sliding Window Protocol.

QUESTION NO: 8

Joe, a user, has a computer that has a link light on his network interface card (NIC); however, Joe

is unable to access the Internet. Which of the following is the cause of this issue?

- A. Faulty GBIC
- B. Faulty SFP
- C. Cable is a crossover
- D. VLAN mismatch

Answer: D

Explanation:

As user has link light on NIC that means he has connectivity with switch so he need to check his vlan assignment.

QUESTION NO: 9

A network technician is troubleshooting signal problems with certain WAPs in an office and finds consistently high ping times across the units. Such an issue is called which of the following?

- A. Latency
- B. Attenuation
- C. Crosstalk
- D. Frequency hopping

Answer: A

Explanation:

During the high ping time users are using most of the bandwidth that causes latency so signal strength get affected by this.

QUESTION NO: 10

Which of the following TCP/IP model layers does the OSI model Presentation layer map to?

- A. Transport
- B. Internet
- C. Application
- D. Network Interface

Answer: C

Explanation:

The Application layer provides applications the ability to access the services of the other layers and defines the protocols that applications use to exchange data. There are many Application layer protocols and new protocols are always being developed.

QUESTION NO: 11

A customer wants to keep cost to a minimum and has only ordered a single static IP address from the ISP. Which of the following must be configured on the router to allow for all the computers to share the same public IP address?

- A. VLANs
- B. PoE
- C. PAT
- D. VPN

Answer: C

Explanation:

Port Address Translation (PAT), is an extension to network address translation (NAT) that permits multiple devices on a local area network (LAN) to be mapped to a single public IP address. The goal of PAT is to conserve IP addresses.

QUESTION NO: 12

Which of the following LAN technologies is used to provide a MAXIMUM bandwidth of 1Gbps through singlemode fiber?

- A. 10GBaseLR
- B. 100BaseFX
- C. 100BaseTX
- D. 1000BaseX

Answer: D

Explanation:

1000BaseX identifies various Gigabit Ethernet physical layer standards as defined in IEEE802.3z, such as 1000BaseLX, 1000BaseSX, 1000BaseCX and 1000BaseLH. Basically, all standards included in 1000BaseX uses 8B/10B coding scheme with 8 bits of data and 2 bits of error-correction data. Each specification allows various cable (fiber or copper) lengths, and uses

different cable media.

QUESTION NO: 13

Which of the following properties of DHCP would a technician use to ensure an IP address is not leased out from the active scope?

- A. Reservations
- B. Lease times
- C. Removing IPs from the active leases
- D. Configuring the DNS options

Answer: A

Explanation:

Reservations are permanent lease assignments that are used to ensure that a specified client on a subnet can always use the same IP address. You can use DHCP reservations for hosts that require a consistent IP address, but do not need to be statically configured.

QUESTION NO: 14

Spanning-Tree Protocol is used with which of the following network devices?

- A. Router
- B. NIC
- C. Switch
- D. DHCP server

Answer: C

Explanation:

Spanning Tree Protocol (STP) is a Layer 2 protocol that runs on bridges and switches. The specification for STP is IEEE 802.1D. The main purpose of STP is to ensure that you do not create loops when you have redundant paths in your network. Loops are deadly to a network.

QUESTION NO: 15

A technician wants to separate networks on a switch. Which of the following should be configured to allow this?

- A. VLAN
- B. Trunking
- C. Spanning tree
- D. Traffic filtering

Answer: A

Explanation:

A VLAN is a group of end stations in a switched network that is logically segmented by function, project team, or application, without regard to the physical locations of the users. VLANs have the same attributes as physical LANs, but you can group end stations even if they are not physically located on the same LAN segment.

QUESTION NO: 16

A user wants to connect seven PCs together for a game night. Which of the following should the user install to help with this task?

- A. Media convertor
- B. Switch
- C. Firewall
- D. Bridge

Answer: B

Explanation:

They connect multiple PCs, printers, servers and other hardware. Switches allow you to send information, such as email, and access shared resources, including printers, in a smooth, efficient, and transparent manner.

QUESTION NO: 17

Which of the following defines the amount of time a host retains a specific IP address before it is renewed or released?

- A. DHCP lease
- B. DNS suffix
- C. Subnet mask
- D. DHCP reservation

Answer: A

Explanation:

By default, each IP address assigned by a DHCP Server comes with a one-day lease, which is the amount of time that the address is valid.

QUESTION NO: 18

Users are reporting that some Internet websites are not accessible anymore. Which of the following will allow the network administrator to quickly isolate the remote router that is causing the network communication issue, so that the problem can be reported to the appropriate responsible party?

- A. Ping
- B. Protocol analyzer
- C. Tracert
- D. Dig

Answer: C

Explanation:

Tracert command will tell the administrator which route is not present or which is present so he will come to know whether he has appropriate route or not.

QUESTION NO: 19

Ann, a new user, has a workstation that has connectivity to the printer located in her department, but cannot access the Internet. The result of an ipconfig command on Ann's workstation is as follows:

IP address: 192.168.0.124

Subnet Mask: 255.255.255.128

Default Gateway: 192.168.0.254

Which is MOST likely preventing the user from accessing the Internet?

- A. Duplicate IP address

- B. Incorrect gateway
- C. Incorrect VLAN
- D. Bad switch port

Answer: B

Explanation:

We usually give default gateway as an end device which is directly connected with ISP so in this case user has lost his connectivity with due to wrong default gateway configured.

QUESTION NO: 20

Which of the following is the common port used for IMAP?

- A. 25
- B. 53
- C. 143
- D. 443

Answer: C

Explanation:

The Internet Message Access Protocol (commonly known as IMAP) is an Application Layer Internet protocol that allows an e-mail client to access e-mail on a remote mail server. The current version, IMAP version 4 revision 1 (IMAP4rev1), is defined by RFC 3501. An IMAP server typically listens on well-known port 143

QUESTION NO: 21

Which of the following network protocols is used to resolve FQDNs to IP addresses?

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

Answer: A

Explanation:

An Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses.

Every time you use a domain name, therefore, a DNS service must translate the name into the corresponding IP address. For example, the domain name `www.example.com` might translate to `198.105.232.4`.

QUESTION NO: 22

Which of the following network protocols is used to transport email between servers?

- A. IMAP4
- B. POP3
- C. SNMP
- D. SMTP

Answer: D

Explanation:

While electronic mail servers and other mail transfer agents use SMTP to send and receive mail messages, user-level client mail applications typically use SMTP only for sending messages to a mail server for relaying

QUESTION NO: 23

Ann, a technician, installs a new WAP and users are able to connect; however, users cannot access the Internet. Which of the following is the MOST likely cause of the problem?

- A. The signal strength has been degraded and latency is increasing hop count.
- B. An incorrect subnet mask has been entered in the WAP configuration.
- C. The signal strength has been degraded and packets are being lost.
- D. Users have specified the wrong encryption type and routes are being rejected.

Answer: B

Explanation:

Due to wrong subnet entered user is unable to communicate with anyone so to communicate he needs to be in right subnet.

QUESTION NO: 24

Users have reported issues accessing an Internet website. The network technician wants to verify network layer connectivity. Which of the following tools can provide the verification?

- A. ping
- B. netstat
- C. route
- D. arp

Answer: A

Explanation:

Ping is a computer network administration utility used to test the reachability of a host on an Internet Protocol (IP) network and to measure the round-trip time for messages sent from the originating host to a destination computer.

QUESTION NO: 25

Which of the following is the FASTEST Ethernet technology?

- A. 10GBaseSR
- B. 10BaseT
- C. 100BaseFX
- D. 1000BaseT

Answer: A

Explanation:

10GBASE-SR ("short range") is a port type for multi-mode fiber and uses 850 nm lasers. Its Physical Coding Sublayer 64b/66b PCS is defined in IEEE 802.3 Clause 49 and its Physical Medium Dependent PMD in Clause 52. It delivers serialized data at a line rate of 10.3125 Gbit/s.

QUESTION NO: 26

Network upgrades have been completed and the WINS server was shutdown. It was decided that NetBIOS network traffic will no longer be permitted. Which of the following will accomplish this objective?

- A. Content filtering

- B. Port filtering
- C. MAC filtering
- D. IP filtering

Answer: B

Explanation: TCP/IP *port filtering* is the practice of selectively enabling or disabling Transmission Control Protocol (TCP) ports and User Datagram Protocol (UDP) ports on computers or network devices. When used in conjunction with other security practices, such as deploying firewall software at your Internet access point, applying port filters to intranet and Internet servers insulates those servers from many TCP/IP-based security attacks, including internal attacks by malicious users.

QUESTION NO: 27

Companies trying to cut down on constant documentation of IP addresses could use which of the following?

- A. Longer lease times
- B. More reservations
- C. Larger scopes
- D. Dynamic IP addressing

Answer: D

Explanation:

In Dynamic IP addressing all the hosts with private ip address will be patted to the same ip so the administrator will not have to keep track of each and every host with private ip mapped to a static public ip address.

QUESTION NO: 28

Which of the following DHCP properties defines the size of the pool of available IP addresses?

- A. Options
- B. Scope
- C. Leases
- D. Reservations

Answer: B

Explanation:

A range of IP addresses that are available to be leased to DHCP clients by the DHCP Server service.

QUESTION NO: 29

Which of the following protocols works at the LOWEST layer of the OSI model?

- A. L2TP
- B. PPTP
- C. ISAKMP
- D. IPsec

Answer: A

Explanation: Layer Two Tunneling Protocol (L2TP) is an extension of the Point-to-Point Tunneling Protocol (PPTP) used by an Internet service provider (ISP) to enable the operation of a virtual private network (VPN) over the Internet.

QUESTION NO: 30

An employee connects to a work computer from home via the built-in Windows remote desktop connection. Which of the following is MOST likely being used to establish the connection?

- A. RDP
- B. RTP
- C. RIP
- D. RAS

Answer: A

Explanation:

Remote Desktop Protocol (RDP) is a proprietary protocol developed by Microsoft, which provides a user with a graphical interface to connect to another computer over a network connection. The user employs RDP client software for this purpose, while the other computer must run RDP server software.

QUESTION NO: 31

Discover, Offer, Request, and Acknowledge are the steps for which of the following protocols?

- A. DNS
- B. DOS
- C. DHCP
- D. DSL

Answer: C

Explanation:

when we install a dhcp server into our network then dhcp server works on the basis of dora process first dhcp server sends a hello message in to the network to discover the clients pc and when any client pc found in the network then, dhcp server offers the IP to client pc. When client pc selects any IP from dhcp server then client pc request for selected IP to dhcp server then dhcp server provide that IP to client pc and both send acknowledgement to each other.

QUESTION NO: 32

Which of the following commands displays the routing table on a server or workstation?

- A. nbtstat
- B. route
- C. traceroute
- D. nmap

Answer: B

Explanation:

The route command allows you to make manual entries into the network routing tables. The route command distinguishes between routes to hosts ...

QUESTION NO: 33

At which of the following layers of the OSI model does ASCII work?

- A. Session
- B. Transport
- C. Presentation
- D. Application

Answer: C

Explanation:

The presentation layer is responsible for the delivery and formatting of information to the application layer for further processing or display. It relieves the application layer of concern regarding syntactical differences in data representation within the end-user systems. An example of a presentation service would be the conversion of an EBCDIC-coded text computer file to an ASCII-coded file.

QUESTION NO: 34

Which of the following uses port 23 by default?

- A. TELNET
- B. IMAP
- C. FTP
- D. SNMP

Answer: A

Explanation:

Telnet is a network protocol used on the Internet or local area networks to provide a bidirectional interactive text-oriented communication facility using a virtual terminal connection. User data is interspersed in-band with Telnet control information in an 8-bit byte oriented data connection over the Transmission Control Protocol (TCP).

QUESTION NO: 35

Assigning the same IP address to a network device is which of the following?

- A. SSID
- B. Scope
- C. Reservation
- D. Lease

Answer: C

Explanation:

You might want to assign network printers and certain servers DHCP reservations to ensure that they always have the same IP address, but continue to receive updated configuration information from the DHCP server. For example, create reservations for servers that must always have the same IP address.

QUESTION NO: 36

At which of the following layers do frames exist? (Select TWO).

- A. OSI model Data link layer
- B. TCP/IP model Network Interface layer
- C. OSI model Physical layer
- D. OSI model Network layer
- E. TCP/IP model Internet layer

Answer: A,B

Explanation:

The data link layer is concerned with local delivery of frames between devices on the same LAN. Data-link frames, as these protocol data units are called, do not cross the boundaries of a local network. Inter-network routing and global addressing are higher layer functions, allowing data-link protocols to focus on local delivery, addressing, and media arbitration. In this way, the data link layer is analogous to a neighborhood traffic cop; it endeavors to arbitrate between parties contending for access to a medium, without concern for their ultimate destination.

QUESTION NO: 37

A user is unable to access any network resources. The IP configuration of the workstation is as follows:

IP Address: 192.168.10.32

Subnet Mask: 255.255.255.240

Default Gateway: 192.168.10.46

Which of the following would allow the user to connect to network resources?

- A. Change the default gateway to 192.168.10.1
- B. Change the default gateway to 192.168.10.254
- C. Change the IP address to 192.168.10.31
- D. Change the IP address to 192.168.10.33

Answer: D

Explanation:

The given ip address is network id which we don't assign to the host so the next ip is applicable to this.

QUESTION NO: 38

Which of the following DNS records is used to identify a domain's SMTP server?

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

Answer: C

Explanation:

A mail exchanger record (MX record) is a type of resource record in the Domain Name System that specifies a mail server responsible for accepting email messages on behalf of a recipient's domain, and a preference value used to prioritize mail delivery if multiple mail servers are available. The set of MX records of a domain name specifies how email should be routed with the Simple Mail Transfer Protocol (SMTP).

QUESTION NO: 39

Which of the following TCP ports are used by FTP? (Select TWO).

- A. 20
- B. 21
- C. 22
- D. 23
- E. 25
- F. 80

Answer: A,B

Explanation:

FTP uses two ports by default: 21 for sending commands, and 20 for sending data. For instance if you said "FTP <ServerName>" it would make the attempt using port 21. If the session was established, port 20 would be using for the data. Note. These are the default ports which is what I assume you were asking. A server administrator can however configure FTP to use whatever port he defines.

QUESTION NO: 40

Which of the following protocols is MOST commonly used for the transfer of router configuration files?

- A. SSL
- B. TFTP
- C. DNS
- D. IMAP

Answer: B

Explanation:

Trivial File Transfer Protocol (TFTP) is a file transfer protocol notable for its simplicity. It is generally used for automated transfer of configuration or boot files between machines in a local environment. Compared to FTP, TFTP is extremely limited, providing no authentication, and is rarely used interactively by a user.

QUESTION NO: 41

Which of the following protocols resolves IP addresses to MAC addresses?

- A. DNS
- B. ARP
- C. RARP
- D. NTP

Answer: B

Explanation:

ARP is used to convert an IP address to a physical address such as an Ethernet address. ARP has been implemented with many combinations of network and data link layer technologies, such as IPv4, Chaosnet, DECnet and Xerox PARC Universal Packet (PUP) using IEEE 802 standards, FDDI, X.25, Frame Relay and Asynchronous Transfer Mode (ATM). IPv4 over IEEE 802.3 and IEEE 802.11 is the most common case.

QUESTION NO: 42

Which of the following port numbers is used for SNMP?

- A. 61
- B. 151
- C. 161
- D. 1611

Answer: C

Explanation:

Simple Network Management Protocol (SNMP) is an "Internet-standard protocol for managing devices on IP networks". Devices that typically support SNMP include routers, switches, servers, workstations, printers, modem racks, UPSes and more. It is used mostly in network management systems to monitor network-attached devices for conditions that warrant administrative attention.

QUESTION NO: 43

Which of the following is the definition of a DNS server?

- A. Hosts proprietary business applications
- B. Translates FQDN's to IP addresses
- C. Provides network IDS/IPS security
- D. Assigns IP addresses to network devices

Answer: B

Explanation:

Domain Name System (DNS) is the name resolution protocol for TCP/IP networks, such as the Internet. Client computers query a DNS server to resolve memorable, alphanumeric DNS names to the IP addresses that computers use to communicate with each other.

QUESTION NO: 44

Which of the following features can BEST be used to facilitate authorized remote access to a network?

- A. VPN concentrator
- B. Proxy server
- C. Content filter
- D. Load balancer

Answer: A

Explanation:

The VPN Concentrator is used for Remote Access VPN's. In typical use, a Remote Access VPN allows users to use an encrypted tunnel to securely access a corporate or other network via the Internet.

QUESTION NO: 45

Which of the following is a Class A IP address?

- A. 10.4.0.1
- B. 169.254.0.1
- C. 192.168.0.1
- D. 254.200.0.1

Answer: A

Explanation:

Class A ip address ranges from 10.0.0.0 to 10.255.255.255

QUESTION NO: 46

A network where all traffic feeds through a centralized gateway uses which of the following topologies?

- A. Peer-to-peer
- B. Ring
- C. Bus
- D. Star

Answer: D

Explanation:

A bus topology is a type of network setup where each computer and network device is connected to a single cable or backbone.

QUESTION NO: 47

In order to limit the number of dynamic addresses of hosts on a network, which of the following can be implemented?

- A. Scope options
- B. Leases
- C. Reservations
- D. DNS suffixes

Answer: A

Explanation:

QUESTION NO: 48

Which of the following IP address/subnet mask combinations represent a broadcast address? (Select TWO).

- A. 200.200.100.0/28
- B. 200.200.100.32/27
- C. 200.200.100.63/27
- D. 200.200.100.79/27
- E. 200.200.100.95/27
- F. 200.200.100.254/30

Answer: C,E

Explanation:

A broadcast address is a logical address at which all devices connected to a multiple-access communications network are enabled to receive datagrams. A message sent to a broadcast address is typically received by all network-attached hosts, rather than by a specific host.

Reference: <http://www.wikihow.com/Calculate-Network-and-Broadcast-Address>

QUESTION NO: 49

Which of the following networking devices can exist at several layers of the OSI model at the same time? (Select TWO).

- A. Switch
- B. Cable

- C. Repeater
- D. Router
- E. Bridge
- F. Hub

Answer: A,D

Explanation:

A Multilayer Switch and Router work from OSI layer 2, 3 or 4 to IP DSCP (if IP packet) and/or VLAN IEEE 802.1p.

QUESTION NO: 50

Which of the following is a path vector routing protocol?

- A. RIP
- B. EIGRP
- C. ISIS
- D. OSPF
- E. BGP

Answer: E

Explanation:

Because BGP involves a table of IP networks or "prefixes" which designate network reachability among autonomous systems (AS).

QUESTION NO: 51

Which of the following routing protocols utilizes the DUAL algorithm for determining best path?

- A. EIGRP
- B. RIPv2
- C. OSPF
- D. RIP

Answer: A

Explanation: Diffusing Update Algorithm guarantees loop-free operation and provides a mechanism for fast convergence.

QUESTION NO: 52

The network interface layer of the TCP/IP model corresponds with which of the following layers of the OSI model? (Select TWO).

- A. Transport layer
- B. Network layer
- C. Session layer
- D. Physical layer
- E. Presentation layer
- F. Data link layer

Answer: D,F

Explanation:

The lowest layer of the OSI Reference Model is the physical layer, which is responsible for the "nitty gritty" details of transmitting information from one place to another on a network. The layer just above the physical layer is the data link layer, called the network interface layer or just the link layer in the TCP/IP architectural model. Its primary job is to implement networks at the local level, and to interface between the hardware-oriented physical layer, and the more abstract, software-oriented functions of the network layer and those above it.

QUESTION NO: 53

Which of the following BEST describes the definition of DHCP?

- A. DHCP is utilized to dynamically lease IP addresses to hosts.
- B. DHCP is utilized to statically lease IP address to hosts.
- C. DHCP is utilized to permanently lease IP address dynamically to hosts.
- D. DHCP is utilized to permanently lease IP address statically to hosts.

Answer: A

Explanation: Because DHCP server maintains a database of available IP addresses and configuration information. When the server receives a request from a client, the DHCP server determines the network to which the DHCP client is connected, and then allocates an IP address or prefix that is appropriate for the client, and sends configuration information appropriate for that client

QUESTION NO: 54

Multiple servers' IP addresses fall within the DHCP scope assigned by the administrator. Which of the following should be implemented to ensure these static IP addresses are not assigned to workstations?

- A. The administrator should create exclusions for the workstations IP addresses.
- B. The administrator should change the servers to utilize DHCP to obtain IP addresses.
- C. The administrator should change the workstations to utilize static IP addresses.
- D. The administrator should create exclusions for the servers IP addresses.

Answer: D

Explanation:

Whenever you define the ip pool from which IP addresses are to be dynamically assigned to the users then in order to avoid assignment of static ip address we can create exclusion for the static ip addresses so that they are not assigned to any other host and this is how we can avoid ip address conflict on the network.

QUESTION NO: 55

The APIPA address 169.254.10.123 falls into which of the following class of addresses?

- A. A
- B. B
- C. C
- D. D

Answer: B

Explanation:

As the range for class B is from 128.0.0.0 to 191.255.255.255

QUESTION NO: 56

A technician replaces a failed router in an office with the same model unit using the default settings. After the installation, the technician reboots all of the PCs and servers. Upon reboot

some of the PCs are receiving IP addresses on the same subnet as the new router; other PCs are receiving addresses on the same subnet as the servers. Which of the following most likely describes the issue?

- A. The DHCP lease pool was not large enough
- B. DHCP lease times were set too low
- C. The router is not the only DHCP server
- D. DHCP was not enabled on the replacement router

Answer: C

Explanation:

This happens when there are multiple DHCP servers in the same LAN subnet. Here some machines are getting ip address from the router while some are getting ip address from another DHCP server present in the same domain.

QUESTION NO: 57

Which of the following is the OSI layer that handles file compression such as LZMA or DEFLATE?

- A. Layer 3
- B. Layer 5
- C. Layer 6
- D. Layer 7

Answer: C

Explanation:

The presentation level is translator between the application and network format. Unlike the lower layers, its concern is with the syntax and semantics of the information transmitted. Most user programs do not exchange random binary bit strings. They exchange data such as names, addresses, dates, etc. Different computers store the data in a different way. In order to allow these computers to transmit the data to each other the presentation layer translates the data into a standard form to be used on the network. Another function is data compression which can be used to reduce the number of bits needed to send the packet of information. Security is also added at this layer by using data encryption and decryption. This prevents others from intercepting the data and being able to decipher the meaning of the bits.

QUESTION NO: 58

Which of the following provides secure access to a network device?

- A. SNMPv2
- B. FTP
- C. RSH
- D. SSH

Answer: D

Explanation: Secure Shell (SSH) is a cryptographic network protocol for secure data communication, remote command-line login, remote command execution, and other secure network services between two networked computers that connects, via a secure channel over an insecure network, a server and a client (running SSH server and SSH client programs, respectively).

QUESTION NO: 59

Which of the following uses distance vector algorithms to determine the BEST network route to a destination address?

- A. IS-IS
- B. OSPF
- C. BGP
- D. RIP

Answer: D

Explanation: Here the term distance vector refers to the fact that the protocol manipulates *vectors* (arrays) of distances to other nodes in the network

QUESTION NO: 60

Which of the following uses classless subnet masks across a network?

- A. Subnetting
- B. CIDR
- C. Supernetting
- D. Summarization

Answer: B

Explanation:

Classless Inter-Domain Routing is based on *variable-length subnet masking* (VLSM), which allows a network to be divided into variously sized subnets, providing the opportunity to size a network more appropriately for local needs and also CIDR allows an address or routing prefix to be written with a suffix indicating the number of bits of the prefix, such as 192.168.2.0/24.

QUESTION NO: 61

Enterprise IP routing policy is MOST clearly depicted in which of the following configuration management documents?

- A. Logical network diagrams
- B. Physical network diagrams
- C. Wiring schematics
- D. Group security role assignments

Answer: A

Explanation:

A logical network diagram illustrates the network architecture of a group of interconnected computers and other devices, such as printers, modems, switches, routers, and even mobile devices. These electronic components form the physical network that provides local area network (LAN) and wide area network (WAN) access to users. Once you know the layout and you have an idea about the packet flow then your job becomes easy and you can create an action plan to go for the implementation.

QUESTION NO: 62

While working on a PC, a technician notices 0.0.0.0 in the routing table. Which of the following does this indicate?

- A. It is the default route.
- B. This is the address for the DHCP server.
- C. The PC has not been assigned an IP address.
- D. The firewall is down.

Answer: A

Explanation: The address 0.0.0.0 generally means "any address". If a packet destination doesn't

match an individual address in the table, it must match a 0.0.0.0 gateway address. In other words, default gateway is always pointed by 0.0.0.0:

QUESTION NO: 63

If a NIC does not have a link light, there is a failure at which of the following OSI layers?

- A. Physical
- B. Session
- C. Data link
- D. Presentation

Answer: A

Explanation: The NIC does not have light refers to a situation that there could be a fault in the LAN cable or the ports are down and all of these fall under the physical layer. To make it simple, it falls in physical layer because blinking lights refers to the physical connectivity.

QUESTION NO: 64

Which of the following OSI layers allows users to access network services such as file sharing?

- A. Layer 1
- B. Layer 3
- C. Layer 4
- D. Layer 7

Answer: D

Explanation:

Basically File Transfer protocol (FTP) is responsible for file transfer which lies under Application layer (Layer 7) of OSI layers.

QUESTION NO: 65

Which of the following can function in an unsecure mode?

- A. SNMPv3
- B. SSH
- C. SSL
- D. SCP

Answer: A

Explanation: SNMPv3 makes no changes to the protocol aside from the addition of cryptographic security, it looks much different due to new textual conventions, concepts, and terminology. SNMPv3 primarily added security and remote configuration enhancements to SNMP

QUESTION NO: 66

Which of the following is used to register and resolve IP addresses with their plain language equivalents?

- A. Proxy server
- B. DNS server
- C. Brouter equipment
- D. DHCP server

Answer: B

Explanation: DNS server translate (resolution) the human-memorable domain names and hostnames into the corresponding numeric Internet Protocol (IP) addresses.

QUESTION NO: 67

Which of the following switch features allows for both incoming and outgoing data across physical ports at the same time?

- A. Burst-frame
- B. Full-duplex
- C. Half-duplex
- D. VoIP

Answer: B

Explanation: A full-duplex (FDX), or sometimes double-duplex system, allows communication in

both directions, and, unlike half-duplex, allows this to happen simultaneously. Land-line telephone networks are full-duplex, since they allow both callers to speak and be heard at the same time

QUESTION NO: 68

Which of the following is a common physical network topology?

- A. Cross-over
- B. Loopback
- C. Star
- D. Straight

Answer: C

Explanation: A star network consists of one central switch, hub or computer, which acts as a conduit to transmit messages. This consists of a central node, to which all other nodes are connected; this central node provides a common connection point for all nodes through a hub. In star topology, every node (computer workstation or any other peripheral) is connected to central node called hub or switch.

QUESTION NO: 69

Which of the following is always true when a router selects a destination?

- A. The default gateway is selected over any other static or dynamic route.
- B. The shortest route is always selected.
- C. The most specific route is selected over the default gateway.
- D. A dynamic route is selected over a directly attached network.

Answer: C

Explanation:

Router always looks for the most closely matched route for forwarding the packet. For example if there are two routes in your router and you have to send a packet to a host with an ip 10.10.10.10 then it will forward packet to 192.168.1.10 rather than 192.168.1.1:

Network	Destination	Netmask	Gateway
0.0.0.0	0.0.0.0	0.0.0.0	192.168.1.1
10.10.10.0	255.255.255.0	192.168.1.10	

QUESTION NO: 70

A proxy server would MOST likely be installed to provide which of the following functions? (Select TWO).

- A. Combined DNS and DHCP hosting
- B. Encryption
- C. Content filtering
- D. Fault tolerance
- E. Website caching

Answer: C,E

Explanation: A content-filtering web proxy server provides administrative control over the content that may be relayed in one or both directions through the proxy. A caching proxy server accelerates service requests by retrieving content saved from a previous request made by the same client or even other clients.

QUESTION NO: 71

Which of the following would the telecommunications carrier use to segregate customer traffic over long fiber links?

- A. VLAN
- B. MPLS
- C. VPN
- D. PSTN

Answer: B

Explanation: MPLS is a mechanism in high-performance telecommunications networks that directs data from one network node to the next based on short path labels rather than long network addresses, avoiding complex lookups in a routing table. The labels identify virtual links (paths) between distant nodes rather than endpoints

QUESTION NO: 72

An administrator notices SMTP traffic is being blocked by the company firewall. Which of the following ports should be opened?

- A. 25
- B. 53
- C. 110
- D. 443

Answer: A

Explanation: SMTP is an Internet standard for electronic mail (e-mail) transmission across Internet Protocol (IP) networks. SMTP uses TCP port 25.

QUESTION NO: 73

Which of the following network topologies would be separated into two networks if a client in the middle is removed or the cable is cut?

- A. Mesh
- B. Ring
- C. Bus
- D. Star

Answer: C

Explanation:

A bus network topology is a network topology in which a set of clients are connected via a shared communications line/cables, called a bus.

QUESTION NO: 74

Which of the following is an example of a Class C address?

- A. 10.19.0.79
- B. 127.34.8.197
- C. 176.96.1.222
- D. 192.168.1.105

Answer: D

Explanation: Class C address range varies from 192.0.0.0 to 223.255.255.255.

QUESTION NO: 75

A computer's DNS has bad cach records.which tools can be used to clear the DNS record.

- A. netstat
- B. ipconfig
- C. nslookup
- D. tracert

Answer: B

Explanation: ipconfig/flushdns will flush/clear the old DNS record, which includes good and bad cached records

QUESTION NO: 76

A router operates at which of the following layers of the OSI model?

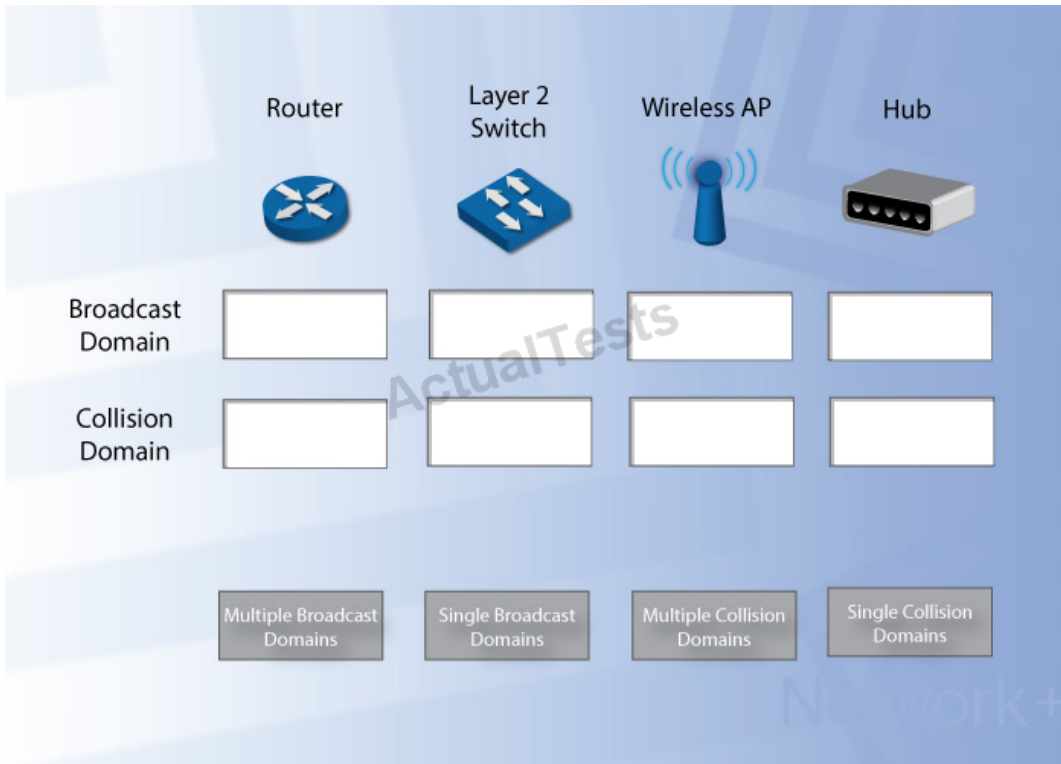
- A. Layer 2
- B. Layer 3
- C. Layer 4
- D. Layer 5

Answer: B

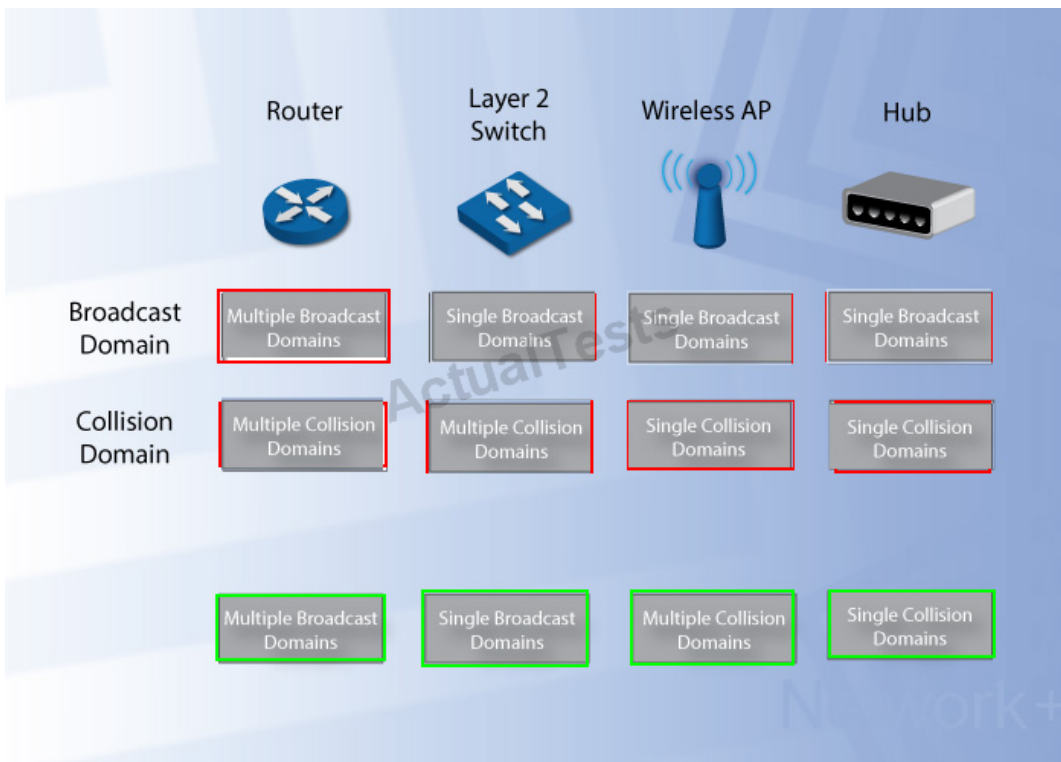
Explanation:

QUESTION NO: 77 DRAG DROP

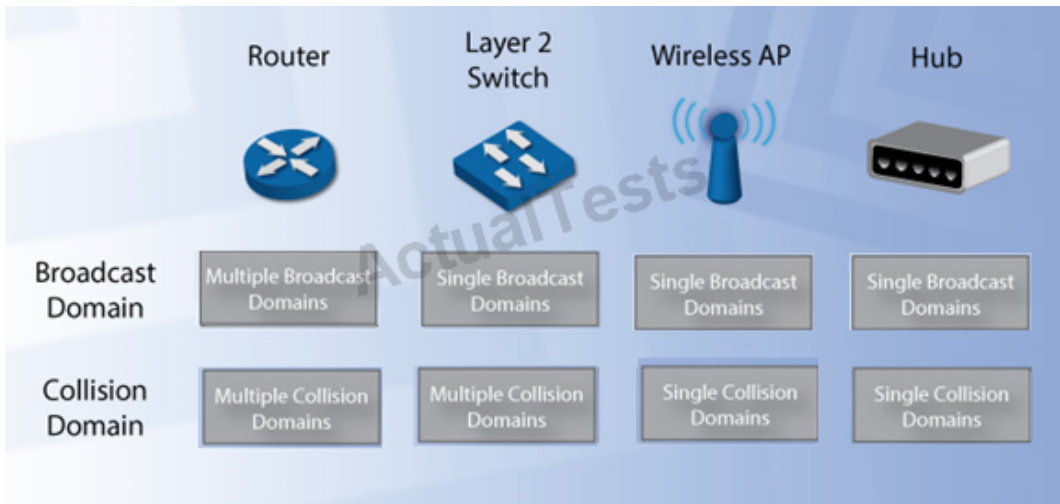
Under each network device, drag and drop the associated broadcast and/or collison description. Objects may be used multiple times, as needed.



Answer:



Explanation:

**QUESTION NO: 78**

Which of the following has the LEAST amount of collisions in a domain?

- A. Bridge
- B. Hub
- C. Repeater
- D. Switch

Answer: D

Explanation:

QUESTION NO: 79

Which of the following protocols uses port 3389 by default?

- A. RDP
- B. TFTP
- C. IMAP
- D. DNS

Answer: A

Explanation:

QUESTION NO: 80

A customer has requested that a new piece of network equipment be installed so that the customer can have multiple subnets for each department, but allow network traffic from each department to reach one another without the use of a router. Which of the following network devices would satisfy this customer's requirements?

- A. Packet filter
- B. Layer 3 switch
- C. Stateful firewall
- D. Wireless bridge

Answer: B

Explanation:

QUESTION NO: 81

Which of the following would be used to run an instance of a Layer 2 device within an application?

- A. Virtual switch
- B. Virtual router
- C. Virtual PBX
- D. NaaS

Answer: A

Explanation:

QUESTION NO: 82

A user arrives at a new house and the Internet provider states the connection will run through the cable. If the user wants to install multiple PCs, which of the following will the user need in order to establish a connection? (Select TWO).

- A. VPN
- B. Router
- C. T1 card
- D. WEP
- E. Modem

Answer: B,E

Explanation:

QUESTION NO: 83

Which of the following protocols is used to send time synchronization updates on a given network?

- A. NTP
- B. POP3
- C. DNS
- D. IMAP

Answer: A

Explanation:

QUESTION NO: 84

Which of the following network protocols is used to transport email across the Internet?

- A. NTP
- B. SSH
- C. SMTP
- D. SNMP

Answer: C

Explanation:

QUESTION NO: 85

The TCP/IP application layer contains which of the following OSI layers?

- A. Layers 1, 5, 6, 7
- B. Layers 4, 7
- C. Layers 5, 6, 7
- D. Layer 7

Answer: C

Explanation:

QUESTION NO: 86

Which of the following is MOST commonly implemented for remote access to UNIX systems?

- A. SSL
- B. RSH
- C. SSH
- D. RDP

Answer: C

Explanation:

QUESTION NO: 87

Using source port numbers as a way to keep track of connections is a characteristic of which of the following protocols?

- A. TCP
- B. UDP
- C. NAT
- D. PAT

Answer: D

Explanation:

QUESTION NO: 88

Which of the following network devices builds a table of ports to MAC addresses to forward packets only to necessary ports?

- A. Switch
- B. Hub
- C. Router
- D. Repeater

Answer: A

Explanation:

QUESTION NO: 89

A user is unable to open up websites on the Internet from a browser. The administrator determines that the workstation can ping its local gateway, but not the remote web server. At which of the following layers of the OSI model does the problem MOST likely exist?

- A. Data link
- B. Network
- C. Session
- D. Physical

Answer: B

Explanation:

QUESTION NO: 90

The application layer in the TCP/IP model is comparable to which of the following layers in the OSI model?

- A. Layer 2
- B. Layer 5
- C. Layer 6
- D. Layer 7

Answer: D

Explanation:

QUESTION NO: 91

A small company has a single multi-layer switch. The company currently has all network devices on the same subnet but would like to switch the servers to another subnet for security reasons. The company cannot budget any more money to purchase additional hardware. Which of the following features should be used to achieve the new company requirements?

- A. PAT
- B. PoE
- C. VLAN

D. QoS

Answer: C

Explanation:

QUESTION NO: 92

A network technician has determined a managed network switch has failed. The technician knows how to install a new switch, but not how to properly configure it. Which of the following troubleshooting steps should the technician take NEXT?

- A. Escalate the problem
- B. Identify potential effects
- C. Test the theory to determine cause
- D. Establish a plan of action to resolve the problem

Answer: A

Explanation:

QUESTION NO: 93

A company has one public IP address, and only one device needs to be able to connect to the Internet at a time. Which of the following is the BEST option for connectivity?

- A. VLSM
- B. CIDR
- C. NAT
- D. PAT

Answer: C

Explanation:

QUESTION NO: 94

Which of the following protocols does DNS utilize on port 53?

- A. TCP

- B. FTP
- C. RTP
- D. ICMP

Answer: A

Explanation:

QUESTION NO: 95

At which of the following layers do IP addresses exist?

- A. TCP/IP model Internet layer
- B. OSI model Data Link layer
- C. TCP/IP model Transport layer
- D. OSI model Physical layer

Answer: A

Explanation:

QUESTION NO: 96

Which two layers of the OSI model make up the TCP/IP model Network Interface layer?

- A. Application and Transport
- B. Transport and Session
- C. Physical and Data Link
- D. Session and Presentation

Answer: C

Explanation:

QUESTION NO: 97

Which of the following source ports is MOST likely to be used by a client when making an outbound TCP connection to a windows server?

- A. 80
- B. 445

- C. 3000
- D. 3389

Answer: C

Explanation:

QUESTION NO: 98

Which of the following services are affected by closing the default ports of 80 and 21 via ACL on a company router?

- A. FTP and basic Internet traffic
- B. HTTPS and IMAP traffic
- C. DNS and TELNET traffic
- D. VPN and RDP traffic

Answer: A

Explanation:

QUESTION NO: 99

A network administrator is tasked with blocking unwanted spam is being relayed by an internal email server. Which of the following is the FIRST step in preventing spam that is originating from bots on the network?

- A. Closing off port 25 on the firewall
- B. Closing off port 53 on the firewall
- C. Turning off the SMTP service on the email server
- D. Turning off the IMAP service on the email server

Answer: A

Explanation:

QUESTION NO: 100

Which of the following uses types and codes rather than ports?

- A. EIGRP

- B. ICMP
- C. UDP
- D. IPv6

Answer: B

Explanation:

QUESTION NO: 101

Two workstations are unable to communicate on the network despite having known good cables. When one device is unplugged from the network the other device functions properly. Which of the following could be the cause of this failure?

- A. Duplicate IP address
- B. Incorrect subnet mask
- C. Incorrect gateway
- D. Wrong DNS

Answer: A

Explanation:

QUESTION NO: 102

Which of the following protocols are used to provide accurate time to network devices?

- A. SMTP
- B. FTP
- C. TLS
- D. NTP

Answer: D

Explanation:

QUESTION NO: 103

Hubs are differentiated from switches in that between the two, only hubs have:

- A. a single collision domain.

- B. a single broadcast domain.
- C. multiple collision domains.
- D. multiple broadcast domains.

Answer: A

Explanation:

QUESTION NO: 104

A home user states during a basement remodel, one of the workers cut the network cable that goes from the modem to the WAP and nothing else has changed. According to the network troubleshooting methodology, which of the following is the NEXT step?

- A. Identify the problem
- B. Question the user
- C. Establish a plan of action
- D. Establish a theory of probable cause

Answer: C

Explanation:

QUESTION NO: 105

Which of the following layers of the OSI model make up the Network Interface layer of the TCP/IP model? (Select TWO).

- A. Application
- B. Physical
- C. Presentation
- D. Transport
- E. Data Link
- F. Network

Answer: B,E

Explanation:

QUESTION NO: 106

At which layer of the OSI model do MAC addresses operate?

- A. Data Link
- B. Network
- C. Application
- D. Physical

Answer: A

Explanation:

QUESTION NO: 107

A network technician recently replaced a managed switch in an enterprise network with a new managed switch. Users on the switch can communicate with each other but now cannot access other network segments. Which of the following is the MOST likely reason that the users are unable to access any network segments?

- A. The newly installed switch is defective and must be returned.
- B. The newly installed switch is using a different MAC address than the previous switch.
- C. The technician forgot to change the VTP mode on the new switch to server.
- D. The technician did not use the correct cable when trunking the new switch.

Answer: D

Explanation:

QUESTION NO: 108

A company has been given a Class C address to be utilized for all devices. The company has several subnets and the largest subnet has 15 hosts. Which of the following represents the MINIMUM CIDR notation of this subnet mask?

- A. /26
- B. /27
- C. /28
- D. /29

Answer: B

Explanation:

QUESTION NO: 109

Users report that they are unable to access the production server with IP address 192.168.30.17. These users need to be provided access without changing any subnet to VLAN information. The VLANs configured on the network are listed below:

Department VLAN # Subnet used

Marketing20 192.168.20.0/28

Customer Service25 192.168.20.64/28

Finance30 192.168.30.0/28

WHSE35 192.168.30.16/28

Sales40 192.168.3.16/28

The users experiencing this issue need to be added to which of the following VLANs?

- A. 25
- B. 30
- C. 35
- D. 40

Answer: C

Explanation:

QUESTION NO: 110

Which of the following addresses is a class B private address?

- A. 132.216.14.184
- B. 152.119.25.213
- C. 162.17.43.22
- D. 172.23.226.34

Answer: D

Explanation:

QUESTION NO: 111

Which of the following is the minimum subnet mask to allow 172.16.1.5 and 172.16.4.3 to be on

the same subnet?

- A. /19
- B. /21
- C. /22
- D. /24

Answer: B

Explanation:

QUESTION NO: 112

DHCP uses which of the following ports by default?

- A. 21
- B. 23
- C. 68
- D. 443

Answer: C

Explanation:

QUESTION NO: 113

A network technician visits a site that needs voice connectivity to the corporate office and installs four IP phones. The phone exchange resides at the telephone company. Which of the following technologies is being used?

- A. Virtual switch
- B. Virtual server
- C. Virtual desktop
- D. Virtual PBX

Answer: D

Explanation:

QUESTION NO: 114

A MAC address is a part of which of the following OSI model layers?

- A. Network
- B. Data Link
- C. Physical
- D. Transport

Answer: B

Explanation:

QUESTION NO: 115

An administrator is able to list the interfaces on a switch after providing the community string "public". Which of the protocols is the administrator MOST likely using?

- A. Telnet
- B. RADIUS
- C. SSH
- D. SNMP

Answer: D

Explanation:

QUESTION NO: 116

The systems administrator has assigned an IP address and default gateway to a standard Layer 2 switch. Which of the following would be the primary purpose of doing this?

- A. Allow VLAN routing
- B. Enable packet filtering on the switch
- C. Allow remote administration of the switch
- D. Enable MAC filtering on the switch

Answer: C

Explanation:

QUESTION NO: 117

Which of the following dynamic routing protocols selects routing paths based upon hop count?

- A. BGP
- B. RIP
- C. OSPF
- D. IGRP

Answer: B

Explanation:

QUESTION NO: 118

A technician, Joe, visits a site that has reported a network down emergency. He immediately reboots the switches and the router since the network is down. Which of the following network troubleshooting methodology steps should Joe have performed FIRST?

- A. Determine if anything has changed
- B. Once a theory is confirmed determine the next step is to resolve the problem
- C. Implement the solution or escalate as necessary
- D. Question the obvious

Answer: A

Explanation:

QUESTION NO: 119

A technician finds that the network card is no longer functioning. At which of the following OSI layers is the problem occurring?

- A. Layer 1
- B. Layer 3
- C. Layer 5
- D. Layer 7

Answer: A

Explanation:

QUESTION NO: 120

The address 6FFE:FFFF:0000:2F3B:04AC:00FF:FEBE:5C4A is an example of which of the following?

- A. APIPA
- B. MAC
- C. IPv4
- D. IPv6

Answer: D

Explanation:

QUESTION NO: 121

Standards such as JPEG and ASCII operate at which of the following OSI model layers?

- A. Presentation
- B. Data link
- C. Session
- D. Application

Answer: A

Explanation:

QUESTION NO: 122

Which of the following protocols are used to view and send mail from a local host off of a remote server? (Select TWO).

- A. TFTP
- B. SNMP
- C. POP3
- D. IMAP4
- E. SFTP

Answer: C,D

Explanation:

QUESTION NO: 123

A multi-layer switch operates at which of the following OSI layers?

- A. Layers 1 and 5
- B. Layers 2 and 3
- C. Layers 4 and 5
- D. Layers 5 and 6

Answer: B

Explanation:

QUESTION NO: 124

Which of the following is a link state routing protocol?

- A. RIPv2
- B. BGP
- C. IS-IS
- D. RIP

Answer: C

Explanation:

QUESTION NO: 125

Layers 5, 6, and 7 from the OSI model correspond to which of the following layers of the TCP/IP model?

- A. Transport
- B. Application
- C. Internet
- D. Network Interface

Answer: B

Explanation:

QUESTION NO: 126

Which of the following protocols is the BEST choice for retrieving email on multiple devices?

- A. IMAP4
- B. SMTP
- C. FTP
- D. SNMPv3

Answer: A

Explanation:

QUESTION NO: 127

A web server that provides shopping cart capabilities for external end users will likely function with which of the following protocols?

- A. HTTPS
- B. POP3
- C. SSH
- D. SMTP

Answer: A

Explanation:

QUESTION NO: 128

Which of the following protocols is used to transfer files over the Internet?

- A. SNMP
- B. NTP
- C. FTP
- D. SIP

Answer: C

Explanation:

QUESTION NO: 129

Which of the following ports would have to be allowed through a firewall for NTP to pass on its default port?

- A. 123
- B. 143
- C. 153
- D. 163

Answer: A

Explanation:

QUESTION NO: 130

Which of the following TCP/IP model layers does the OSI model Data Link layer map to?

- A. Application
- B. Transport
- C. Internet
- D. Network Interface

Answer: D

Explanation:

QUESTION NO: 131

On which of the following layers of the OSI model does IP operate?

- A. Session
- B. Transport
- C. Network
- D. Data link

Answer: C

Explanation:

QUESTION NO: 132

Which of the following ports is used by Telnet?

- A. 21
- B. 23

- C. 80
- D. 143

Answer: B

Explanation:

QUESTION NO: 133

Which of the following subnet masks indicate a subnet with exactly 254 assignable IP addresses?

- A. 255.0.0.0
- B. 255.255.0.0
- C. 255.255.255.0
- D. 255.255.255.254

Answer: C

Explanation:

QUESTION NO: 134

Which of the following protocols could the below packet capture be from?

Port: 161

msgVersion: <masked>

msgUsername: <masked>

msgAuthenticationParameters: <masked>

msgPrivacyParameters: <masked>

msgData:

data: get-request

request-iD. <masked>

error-status: noError (0)

error-index: 0

variable-bindings: 0 items

- A. SNMPv3
- B. SSH
- C. HTTP
- D. SNMPv1

Answer: A

Explanation:

QUESTION NO: 135

Which of the following network protocols would be used to transmit traps across a network to a log server?

- A. SMTP
- B. PPPoE
- C. POP3
- D. SNMP

Answer: D

Explanation:

QUESTION NO: 136

Which of the following is an advantage of dynamic routing?

- A. It can reroute connectivity in the event of failure.
- B. It is the simplest form of routing.
- C. The routes do not change.
- D. The setup and configuration are done manually.

Answer: A

Explanation:

QUESTION NO: 137

203.50.5.0 is an example of which of the following network classes?

- A. Class A

- B. Class B
- C. Class C
- D. Class D

Answer: C

Explanation:

QUESTION NO: 138

Which of the following port numbers needs to be open on a firewall to allow FTP traffic?

- A. 21
- B. 22
- C. 23
- D. 25

Answer: A

Explanation:

QUESTION NO: 139

Which of the following protocols is used by Windows to securely access a remote computer?

- A. RAS
- B. Telnet
- C. PPP
- D. RDP

Answer: D

Explanation:

QUESTION NO: 140

The components of a NIC function at which of the following layers of the OSI model? (Select TWO).

- A. Layer 1
- B. Layer 2

- C. Layer 3
- D. Layer 4
- E. Layer 5

Answer: A,B

Explanation:

QUESTION NO: 141

An IP address is encapsulated at which of the following layers of the OSI model?

- A. Transport
- B. Data link
- C. Network
- D. Application

Answer: C

Explanation:

QUESTION NO: 142

Assigning IP addresses from a pool of predetermined available addresses is the role of which of the following network appliances?

- A. RADIUS
- B. DNS
- C. DHCP
- D. IDS

Answer: C

Explanation:

QUESTION NO: 143

Which of the following is considered a routing metric?

- A. Hop count
- B. QoS

- C. Subnet size
- D. IP address

Answer: A

Explanation:

QUESTION NO: 144

At which of the following layers of the OSI model is the Logical Link Control found?

- A. Layer 2
- B. Layer 3
- C. Layer 4
- D. Layer 5

Answer: A

Explanation:

QUESTION NO: 145

After a new firewall is installed, users report that they do not have connectivity to the Internet. The output of the ipconfig command shows an IP address of 169.254.0.101. Which of the following ports would need to be opened on the firewall to allow the users to obtain an IP address? (Select TWO).

- A. UDP 53
- B. UDP 67
- C. UDP 68
- D. TCP 53
- E. TCP 67
- F. TCP 68

Answer: B,C

Explanation:

QUESTION NO: 146

At which of the following layers of the OSI model do packets exist?

- A. Network
- B. Session
- C. Data Link
- D. Transport

Answer: A

Explanation:

QUESTION NO: 147

Which of the following ports does IMAP use by default?

- A. 110
- B. 123
- C. 143
- D. 443

Answer: C

Explanation:

QUESTION NO: 148

Which of the following is a public class C IP address?

- A. 4.2.2.2
- B. 194.178.12.54
- C. 175.35.46.60
- D. 192.168.1.34

Answer: B

Explanation:

QUESTION NO: 149

Users in several departments are reporting connectivity problems. The technician examines the computer and finds the following settings. The IP address is 10.0.1.0 with a subnet mask of 255.255.252.0. The default gateway is 10.0.1.1 and the DNS server is 10.0.0.15. A user can connect to the internet but not servers on other internal subnets. The technician is not able to connect with a server with an IP of 10.0.2.25. Which of the following is MOST likely the problem?

- A. Default gateway
- B. Duplicate IP address
- C. Wrong DNS
- D. Subnet mask

Answer: D

Explanation:

QUESTION NO: 150

Which of the following correctly lists the layers of the OSI model starting at Layer 1?

- A. Data Link, Physical, Network, Transport, Presentation, Session, Application.
- B. Physical, Data Link, Network, Transport, Presentation, Session, Application.
- C. Physical, Data Link, Transport, Network, Session, Presentation, Application.
- D. Physical, Data Link, Network, Transport, Session, Presentation, Application.

Answer: D

Explanation:

QUESTION NO: 151

At which layer of the OSI and TCP/IP model would HTTP and FTP be found?

- A. Application
- B. Network
- C. Session
- D. Data Link

Answer: A

Explanation:

QUESTION NO: 152

At which layer of the TCP/IP model would cabling exist?

- A. Network Interface
- B. Internet

- C. Application
- D. Transport

Answer: A

Explanation:

QUESTION NO: 153

Which of the following can be configured on a managed network switch to send real time alerts to a technician?

- A. SSID
- B. SMTP
- C. SNMP
- D. Syslog

Answer: C

Explanation:

QUESTION NO: 154

A small business owner is in the process of setting up a SOHO office. The office has only one connection to the Internet via a broadband cable connection. The office has four subnets that must be able to connect to the Internet. Which of the following devices would enable the owner to meet these requirements?

- A. A firewall
- B. A router
- C. A hub
- D. A Layer 2 switch

Answer: B

Explanation:

QUESTION NO: 155

Which of the following is described by the MAC address FF:FF:FF:FF:FF:FF?

- A. Unicast MAC address.
- B. Invalid MAC address.
- C. Multicast MAC address.
- D. Broadcast MAC address.

Answer: D

Explanation:

QUESTION NO: 156

Based on the packet capture below, which of the following services is the client requesting?

08:30:54.982378192.168.50.42.8329 > 192.168.50.20.53:

S 32859235:32859235(0) win 8096

08:30:55.001378192.168.50.20.53 > 192.168.50.42.8329:

S 31845637: 31845637(0) ack 32859236 win 8096

08:30:55.027578192.168.50.42.8329 > 192.168.50.51.53:

ack 1 win 8096

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

Answer: D

Explanation:

QUESTION NO: 157

Which of the following exist at layer three of the OSI model? (Select TWO).

- A. NIC
- B. Switch
- C. Frame
- D. Packet
- E. Router

F. Cable

Answer: D,E

Explanation:

QUESTION NO: 158

Which of the following routing protocols can be utilized as both an IGP and EGP?

- A. EIGRP
- B. RIP
- C. IGRP
- D. RIPv2

Answer: A

Explanation:

QUESTION NO: 159

Which of the following layers of the OSI model is responsible for stripping the TCP port information before sending the packet up to the next layer?

- A. 2
- B. 3
- C. 4
- D. 5

Answer: C

Explanation:

QUESTION NO: 160

The protocol SNMP uses which of the following ports by default?

- A. 53
- B. 61
- C. 67
- D. 161

Answer: D

Explanation:

QUESTION NO: 161

Which of the following IP address/CIDR combinations represent public address space? (Select TWO).

- A. 10.1.1.1/8
- B. 172.15.1.1/16
- C. 172.16.1.1/16
- D. 172.31.1.1/16
- E. 193.168.2.1/24
- F. 224.0.0.1/32

Answer: B,E

Explanation:

QUESTION NO: 162

Which of the following contains the SYN and ACK flags?

- A. UDP header
- B. IP header
- C. TCP header
- D. ICMP header

Answer: C

Explanation:

QUESTION NO: 163

Which of the following remote access protocols is commonly used for command line access to a device?

- A. RAS
- B. VPN
- C. RDP

D. SSH

Answer: D

Explanation:

QUESTION NO: 164

A technician wants to send management information from devices on the network to a central server and have it encrypted in the process. Which of the following protocols can be used?

- A. SNMPv3
- B. FTP
- C. TFTP
- D. Telnet

Answer: A

Explanation:

QUESTION NO: 165

Which of the following would be considered a Class C private address?

- A. 10.0.0.125
- B. 192.168.50.125
- C. 192.169.0.132
- D. 255.255.255.0

Answer: B

Explanation:

QUESTION NO: 166

Which of the following protocols is used to detect and eliminate switching loops within a network?

- A. Spanning Tree Protocol
- B. EIGRP
- C. OSPF
- D. Dynamic routing

Answer: A

Explanation:

QUESTION NO: 167

Which of the following are valid hosts for the Private IP Address range 172.16.0.x /23? (Select TWO).

- A. 172.16.0.255
- B. 172.16.0.0
- C. 172.16.1.1
- D. 172.16.8.0
- E. 172.16.256.255

Answer: A,C

Explanation:

QUESTION NO: 168

An administrator needs to open ports in the firewall for both DNS and eDNS. Which of the following default ports would need to be opened on the firewall? (Select TWO).

- A. TCP 23
- B. TCP 53
- C. TCP 123
- D. UDP 23
- E. UDP 53
- F. UDP 123

Answer: B,E

Explanation:

QUESTION NO: 169

The MAC address of a network device is used to communicate at which of the following OSI layers?

- A. Layer 1

- B. Layer 2
- C. Layer 4
- D. Layer 5

Answer: B

Explanation:

QUESTION NO: 170

192.168.0.7/8 notation denotes which of the following IPv4 subnet masks?

- A. 255.0.0.0
- B. 255.255.0.0
- C. 255.255.255.0
- D. 255.255.255.255

Answer: A

Explanation:

QUESTION NO: 171

A technician has resolved a ticket to fix a user's printer and has verified that the user is able to print with no issues. Which of the following action steps should the technician perform FIRST?

- A. Document findings and outcomes
- B. Establish a theory of probably cause
- C. Upgrade the printer drivers
- D. Close out the service ticket

Answer: A

Explanation:

QUESTION NO: 172

Which of the following TCP/IP model layers combines four OSI model layers?

- A. Application Layer
- B. Internet Layer

- C. Transport Layer
- D. Network Interface Layer

Answer: A

Explanation:

QUESTION NO: 173

Which of the following OSI model layers are present in the application layer of the TCP/IP model? (Select TWO).

- A. Data Link
- B. Transport
- C. Network
- D. Session
- E. Presentation

Answer: D,E

Explanation:

QUESTION NO: 174

A SOHO client has tasked Joe, a technician, with setting up a basic SOHO network to support four laptops and one desktop PC. The client would also like to have a basic wireless network to use for internal devices only that is secure. Given the list of requirements, which of the following devices would Joe need to purchase for his client? (Select TWO).

- A. IDS
- B. Repeater
- C. Switch
- D. WAP
- E. UTM device

Answer: C,D

Explanation:

QUESTION NO: 175

Which of the following OSI model layers is used to frame packets that are sent over a medium?

- A. Session
- B. Data link
- C. Physical
- D. Transport

Answer: B

Explanation:

QUESTION NO: 176

Which of the following are considered unsecure access methods? (Select TWO).

- A. FTP
- B. IPSec
- C. RCP
- D. SCP
- E. SFTP

Answer: A,C

Explanation:

QUESTION NO: 177

Frame relay occurs at which of the following layers of the OSI model?

- A. Layer 1
- B. Layer 2
- C. Layer 4
- D. Layer 6

Answer: B

Explanation:

QUESTION NO: 178

Which of the following protocols occurs at Layer 4 of the OSI model?

- A. ISDN

- B. IPX
- C. GRE
- D. UDP

Answer: D

Explanation:

QUESTION NO: 179

Which of the following uses a 128-bit addressing scheme?

- A. MAC
- B. DHCP
- C. IPv4
- D. IPv6

Answer: D

Explanation:

QUESTION NO: 180

Which of the following protocols exchange the latest information that has changed in the routing table?

- A. TFTP
- B. BGP
- C. OSPF
- D. IGMP

Answer: C

Explanation:

QUESTION NO: 181

An advertised route learned from one protocol over a different protocol is called:

- A. Co-location

- B. Reallocation
- C. Redundancy
- D. Redistribution

Answer: D

Explanation:

QUESTION NO: 182

A network administrator has been assigned the 192.168.2.64/26 network and assigns the following computer's IP addresses:

192.168.2.70

192.168.2.100

192.168.2.125

192.168.2.130

When the administrator tries to ping the other computers from 192.168.2.130, an ECHO REPLY is not received. Which of the following must the network administrator do?

- A. Change the IP of 192.168.2.130 to 192.168.1.128.
- B. Change the IP of 192.168.2.130 to 192.168.2.126.
- C. Change the default gateway of 192.168.2.130 accordingly.
- D. Reconfigure the switch for the right VLAN.

Answer: B

Explanation:

QUESTION NO: 183

Which of the following is used to embed the MAC address of an Ethernet interface in a corresponding IPv6 address?

- A. Subnet
- B. IANA prefix
- C. EUI-64
- D. Site-local

Answer: C

Explanation:

QUESTION NO: 184

The BEST way to determine the next hop of a packet is to check the:

- A. link state.
- B. routing table.
- C. routing metrics.
- D. convergence.

Answer: B

Explanation:

QUESTION NO: 185

Which of the following reside at a minimum of Layer 3 of the OSI model? (Select TWO).

- A. Hub
- B. Switch
- C. MAC address
- D. IP address
- E. Router

Answer: D,E

Explanation:

QUESTION NO: 186

Which of the following is the unit used to transfer information at Layer 2 of the OSI model?

- A. Packet
- B. Socket
- C. Session
- D. Frame

Answer: D

Explanation:

QUESTION NO: 187

Which of the following differentiates a layer 3 switch from a layer 2 switch?

- A. Routing
- B. Bridging
- C. Switching
- D. Repeating

Answer: A

Explanation:

QUESTION NO: 188

Which of the following defines an IP address that is NOT routed on the Internet?

- A. Multicast
- B. Public
- C. Private
- D. Classful

Answer: C

Explanation:

QUESTION NO: 189

Which of the following operate at the Data Link layer of the OSI model? (Select TWO).

- A. MAC address
- B. Router
- C. Hub
- D. Switch
- E. IP address

Answer: A,D

Explanation:

QUESTION NO: 190

Which of the following OSI model layers is used to order packets which may have arrived out of order?

- A. Transport
- B. Presentation
- C. Network
- D. Session

Answer: A

Explanation:

QUESTION NO: 191

Which of the following describes the amount of time it takes for a packet to transmit from one switch to another?

- A. Hop count
- B. Latency
- C. MTU limit
- D. Distance vector

Answer: B

Explanation:

QUESTION NO: 192

Dynamic DNS provides which of the following services?

- A. Automatic registration of host records
- B. Translates public host names to private host names
- C. Provides round robin load balancing for web servers
- D. Provides aliases for additional search suffixes

Answer: A

Explanation:

QUESTION NO: 193

Which of the following DNS records must be queried to resolve the IPv6 address of a website?

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

Answer: C

Explanation:

QUESTION NO: 194

Which of the following records allows for reverse DNS lookups?

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

Answer: C

Explanation:

QUESTION NO: 195

Which of the following DNS records is used in conjunction with 192:168::1:10?

- A. AAAA
- B. MX
- C. TXT
- D. PTR

Answer: A

Explanation:

QUESTION NO: 196

Which of the following is associated with DNS reverse lookup zones?

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

Answer: C

Explanation:

QUESTION NO: 197

The network technician has recently implemented VLANs on the company network. Ever since this implementation, sections within the company can no longer share information. While troubleshooting, the technician realizes they are unable to ping a device from another VLAN. Which of the following needs to be configured to fix this problem?

- A. Clear the ARP table
- B. Add host entries on the user's computer
- C. Configure 802.1x trunks on the switches
- D. Configure 802.1q trunks on the switches

Answer: D

Explanation:

QUESTION NO: 198

When a loop occurs, which of the following STP components determines which port to disable?

- A. Convergence
- B. Root bridge
- C. BPDU guard
- D. MAC address

Answer: B

Explanation:

QUESTION NO: 199

The term virtual switch refers to which of the following?

- A. A switch that has not yet been implemented in the local network
- B. Migrating an entire environment to virtualization
- C. A computer component that controls environmental elements, such as lights and thermometers
- D. A logical, rather than a physical switch device

Answer: D

Explanation:

QUESTION NO: 200

Which IEEE protocol is used with VLAN technology?

- A. 802.11a
- B. 802.11b
- C. 802.1m
- D. 802.1q

Answer: D

Explanation:

QUESTION NO: 201

Which of the following allows for groups of ports on the same switch to operate as a part of different segmented networks?

- A. RIP
- B. STP
- C. VLAN
- D. MTU

Answer: C

Explanation:

QUESTION NO: 202

After the technician has established a theory of probable cause of a user reported problem, which of the following should the technician do NEXT in the troubleshooting process?

- A. Implement the solution to the problem.
- B. Establish a plan of action.
- C. Identify the problem.
- D. Implement preventative measures.

Answer: B

Explanation:

QUESTION NO: 203

A network administrator notices that load balancing is not working properly on the web cluster as previously configured. In speaking with management, a change to the IP addressing scheme was made yesterday which possibly affected one member of the cluster. Due to the timing of the events, the administrator theorizes that this change caused the problem. Which of the following should the administrator do NEXT?

- A. Escalate to the management team
- B. Change the IP address back to its previous state
- C. Test the theory by analyzing logs
- D. Create a plan of action to present to management

Answer: C

Explanation:

QUESTION NO: 204

Which of the following STP states indicates an inactivated port due to a loop?

- A. Disabled
- B. Learning
- C. Blocking
- D. Forwarding

Answer: C

Explanation:

QUESTION NO: 205

Which of the following describes a manually entered route?

- A. Static
- B. Dynamic
- C. Multicast
- D. Unicast

Answer: A

Explanation:

QUESTION NO: 206

A technician has been tasked to set-up a managed switch. Which of the following will the technician need to accomplish this task?

- A. IP address
- B. Switch serial number
- C. VLAN tag
- D. Loopback plug

Answer: A

Explanation:

QUESTION NO: 207

A technician has installed a group of layer 2 switches with multiple VLANs. The VLANs cannot talk to each other. Which of the following network devices could correct this problem? (Select TWO).

- A. Hub
- B. DNS server
- C. DHCP server
- D. Layer 3 switch
- E. Router

Answer: D,E

Explanation:

QUESTION NO: 208

Which of the following is the BEST network configuration to use if the technician wants to send all outgoing traffic to the external router?

- A. ACLs
- B. Static routing
- C. Trunking
- D. SNMP strings

Answer: B

Explanation:

QUESTION NO: 209

A user reports they are unable to access a file on a mapped network drive. A technician discovers the server where the file is located did not come back online after last night's power outage and manually powers the server back online. The technician then verifies the user can connect to their file. Which of the following troubleshooting steps should the technician do NEXT?

- A. Escalate by following change procedures
- B. Establish a plan of action to resolve the problem
- C. Document findings, actions, and outcomes
- D. Question the user

Answer: C

Explanation:

QUESTION NO: 210

A user reports intermittent network connectivity from their desktop PC. A technician determines the cause to be a bad wall jack and fixes the jack. Which of the following should the technician do NEXT?

- A. Test the theory

- B. Question the user
- C. Document the outcome
- D. Verify functionality

Answer: D

Explanation:

QUESTION NO: 211

Which of the following is used to describe trunking VLANs on a network?

- A. 802.11a
- B. 802.11i
- C. 802.1q
- D. 802.1x

Answer: C

Explanation:

QUESTION NO: 212

A company pays a third-party vendor a monthly fee to connect to offsite servers and desktops. Users connect to the desktops via RDP, and administrators connect to the servers via VPN. Servers and desktops are hardware-based. Which of the following is the third-party providing?

- A. Virtual desktops
- B. Virtual servers
- C. NaaS
- D. SaaS

Answer: C

Explanation:

QUESTION NO: 213

A forward lookup zone converts which of the following?

- A. IP addresses to hostnames

- B. Hostnames to IP addresses
- C. MAC addresses to IP addresses
- D. IP Addresses to MAC addresses

Answer: B

Explanation:

QUESTION NO: 214

A user reports lack of network connectivity on their desktop. Which of the following is the FIRST step of the network troubleshooting methodology that the technician should perform?

- A. Establish a plan of action to resolve the problem.
- B. Establish a theory of probable cause by questioning the obvious.
- C. Test the theory to determine the cause.
- D. Question the user to determine if anything has changed.

Answer: D

Explanation:

QUESTION NO: 215

A technician has narrowed down the cause of a problem to two possible sources. Which of the following should the technician do NEXT?

- A. Implement a solution for both causes to be sure all possibilities are covered.
- B. Choose the more likely cause and test to confirm.
- C. Establish a plan of action for each.
- D. Choose the less likely cause and test to eliminate.

Answer: B

Explanation:

QUESTION NO: 216

A user reports that they are unable to connect to the network. Upon further investigation, a technician notices that the user has an IP address/subnet mask combination of 192.168.204.255/24. The default gateway for the network is 192.168.204.254. Which of the following could the user's IP address be changed to so that they could connect to the network?

- A. 192.168.204.0/27
- B. 192.168.204.1/27
- C. 192.168.204.112/24
- D. 192.168.204.254/24

Answer: C

Explanation:

QUESTION NO: 217

In order for switching loops to be automatically disabled, which of the following needs to be implemented?

- A. Routing tables
- B. Collision domains
- C. Port mirroring
- D. Spanning-tree protocol

Answer: D

Explanation:

QUESTION NO: 218

A number of remote users have reported being unable to securely log on to the company's network. Upon speaking with some of the employees experiencing the issue, no changes were made to their configurations, usernames, or passwords. The technician establishes a theory that one of the VPN concentrators may be down. Which of the following should the technician do NEXT?

- A. Plan to reboot the concentrator as the potential solution
- B. Escalate the problem to management
- C. Continue to speak to users, questioning if changes have been made
- D. Test access to the concentrator to confirm the status

Answer: D

Explanation:

Topic 2, Network Installation & Configuration

QUESTION NO: 219

Which of the following standards can operate at either 20MHz or 40MHz channel spacing?

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

Answer: D

Explanation:

The 2.4 GHz ISM band is fairly congested. With 802.11n, there is the option to double the bandwidth per channel to 40 MHz which results in slightly more than double the data rate. However, when in 2.4 GHz, enabling this option takes up to 82%^[10] of the unlicensed band, which in many areas may prove to be infeasible.

The specification calls for requiring one primary 20 MHz channel as well as a secondary adjacent channel spaced ± 20 MHz away. The primary channel is used for communications with clients incapable of 40 MHz mode. When in 40 MHz mode, the center frequency is actually the mean of the primary and secondary channels.

QUESTION NO: 220

A network technician has just upgraded a switch. The new switch's IP range and subnet mask correctly match other network devices. The technician cannot ping any device outside of the switch's own IP subnet. The previous switch worked correctly with the same settings. Which of the following is MOST likely the problem?

- A. The proxy server is set incorrectly.
- B. The Ethernet cable is pinched.
- C. The network gateway is set incorrectly.
- D. The IP address is set incorrectly.

Answer: C

Explanation:

When user is able to ping everything in its own subnet that means that all the hosts are reachable however when you are not able to ping anything outside of this subnet then please check if the device is sending traffic to the correct host who should forward it to the further devices.

QUESTION NO: 221

Joe has a small office and is looking to replace his phone system with a lower cost solution that requires minimal in-house support. Which of the following is the BEST choice?

- A. Wide Area Network
- B. NAT
- C. Virtual PBX
- D. Virtual LAN

Answer: C

Explanation:

Virtual PBX, a business phone system providing call routing, follow-me calling, voice-mail, fax-mail, and ACD queues with no customer installed equipment.

QUESTION NO: 222

Which of the following performance optimization techniques would be MOST beneficial for a network-wide VoIP setup? (Select TWO).

- A. Proxy server
- B. Traffic shaping
- C. Caching engines
- D. Load balancing
- E. Quality of service

Answer: B,E

Explanation:

Traffic shaping retains excess packets in a queue and then schedules the excess for later transmission over increments of time. The result of traffic shaping is a smoothed packet output rate. QoS (Quality of Service) is a major issue in VOIP implementations. The issue is how to guarantee that packet traffic for a voice or other media connection will not be delayed or dropped due interference from other lower priority traffic.

Things to consider are:

Latency: Delay for packet delivery

Jitter: Variations in delay of packet delivery

Packet loss: Too much traffic in the network causes the network to drop packets

Burstiness of Loss and Jitter: Loss and Discards (due to jitter) tend to occur in bursts

QUESTION NO: 223

A customer has requested a solution using multiple WAPs for wireless access. Which of the following should be different on each WAP to prevent wireless problems?

- A. Firewalls
- B. VLANs
- C. Channels
- D. Antenna types

Answer: C

Explanation:

Protocol requires 16.25 to 22 MHz of channel separation (as shown above), adjacent channels overlap and will interfere with each other.

Channels 1, 6, and 11 are the most common channels to choose, and most routers will use one of them as the default channel—but the general idea is to be as far away from everybody else as you can.

QUESTION NO: 224

Which of the following wireless standards has a MAXIMUM transfer rate of 11Mbps?

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

Answer: B

Explanation:

The 802.11b standard allows for a maximum data transfer speed of 11 Mbps, at a range of about 100 m indoors and up to 200 metres outdoors (or even beyond that, with directional antennas.)

Hypothetical speed

Range(indoors)

Range(outdoors)

11 Mbits/s

50 m

200 m

5.5 Mbits/s

75 m

300 m

2 Mbits/s

100 m

400 m

1 Mbit/s

150 m

500 m

QUESTION NO: 225

A network technician needs to configure a port on a switch to provide connectivity and electrical support to a WAP being installed in a warehouse. Which of the following features needs to be configured on the switch?

- A. STP
- B. PoE
- C. VTP trunking
- D. Port forwarding

Answer: B

Explanation:

Power over Ethernet or PoE describes any of several standardized or ad-hoc systems which pass electrical power along with data on Ethernet cabling. This allows a single cable to provide both data connection and electrical power to devices such as wireless access points or IP cameras.

QUESTION NO: 226

The network support team is constantly getting calls from users in a specific area of an office building. The users are able to connect to the office wireless network, but they sometimes disconnect or experience very slow download speeds. Which of the following is MOST likely the

problem?

- A. Incorrect service set identifier
- B. Low signal strength or interference
- C. Incorrect encryption scheme
- D. Incorrect IP address or subnet mask

Answer: B

Explanation:

This generally happens when the signals are weak in any particular area and any movement can make you lose connectivity to the internet. In this case you can try to increase the radio power so that the signal strength can be increased.

QUESTION NO: 227

A technician needs multiple networks, high speeds, and redundancy on a system. Which of the following configurations should be considered for these requirements? (Select TWO).

- A. Routing table
- B. Next hop
- C. Port mirroring
- D. Port monitoring
- E. VLANs

Answer: C,E

Explanation:

Port mirroring is used on a network switch to send a copy of network packets seen on one switch port (or an entire VLAN) to a network monitoring connection on another switch port. This is commonly used for network appliances that require monitoring of network traffic, such as an intrusion detection system, passive probe or real user monitoring (RUM) technology that is used to support application performance management (APM).

In computer networking, a single layer-2 network may be partitioned to create multiple distinct broadcast domains, which are mutually isolated so that packets can only pass between them via one or more routers; such a domain is referred to as a Virtual Local Area Network, Virtual LAN or VLAN.

QUESTION NO: 228

A user reports that some normally accessible external sites are not responding, but most other sites are responding normally. Which of the following is MOST likely the cause?

- A. VLAN tag mismatch
- B. Wrong subnet mask
- C. Smurf attack
- D. Faulty routing rule

Answer: D

Explanation:

This happens when the DNS server is able to resolve the URL but there can be a conflicting route pointing to somewhere else rather than to the correct device who is responsible for routing traffic to the internet.

QUESTION NO: 229

During a disaster recovery test, several billing representatives need to be temporarily setup to take payments from customers. It has been determined that this will need to occur over a wireless network, with security being enforced where possible. Which of the following configurations should be used in this scenario?

- A. WPA2, SSID enabled, and 802.11n.
- B. WEP, SSID enabled, and 802.11b.
- C. WEP, SSID disabled, and 802.11g.
- D. WPA2, SSID disabled, and 802.11a.

Answer: D

Explanation:

WPA2 is a security technology commonly used on Wi-Fi wireless networks. WPA2 (Wireless Protected Access 2) replaced the original WPA technology on all certified Wi-Fi hardware since 2006 and is based on the IEEE 802.11i technology standard for data encryption.

QUESTION NO: 230

Which of the following wiring distribution types, often found in company closets, is used to connect wiring from individual offices to the main LAN cabling?

- A. MDF
- B. 66 block
- C. IDF

D. Patch panel

Answer: D

Explanation:

A patch panel, patch bay, patch field or jack field is a number of circuits, usually of the same or similar type, which appear on jacks for monitoring, interconnecting, and testing circuits in a convenient, flexible manner.

QUESTION NO: 231

Which of the following is the difference between 802.11b and 802.11g?

- A. Distance
- B. Frequency
- C. Speed
- D. Transmission power

Answer: C

Explanation:

802.11b has a maximum speed of 11Mbps whereas 802.11g has a speed of 54Mbps.

QUESTION NO: 232

Which of the following connectors is usable in SFP modules?

- A. ST
- B. LC
- C. LX
- D. SX

Answer: B

Explanation:

LC connector is used in SFP modules.



QUESTION NO: 233

A user reports that several spots within the company's office have intermittent connectivity issues with the newly installed wireless network. There are several WAPs located around the office to provide a strong signal wherever the users are. Which of the following is the MOST likely cause of the problem?

- A. Incompatible network card
- B. Channel overlap
- C. Latency
- D. WEP encryption

Answer: B

Explanation:

To reduce interference between wireless APs, ensure that wireless APs with overlapping signals

use unique channel frequencies. The 802.11b standard reserves 14 frequency channels for use with wireless APs.

QUESTION NO: 234

A customer is having problems connecting to a wireless network in a shared office space. The customer can detect several other wireless network signals. All of the wireless networks have different SSIDs but several are using the same encryption type. Which of the following should be configured on the customer's wireless network to improve connectivity to the wireless network?

- A. Change the SSID to match other wireless networks for increased throughput.
- B. Change the encryption type to a different mechanism to avoid interference.
- C. Change the channel to a different channel than the other wireless networks.
- D. Change the WAP to a different manufacturer than the other wireless networks.

Answer: C

Explanation:

To reduce interference between wireless APs, ensure that wireless APs with overlapping signals use unique channel frequencies. The 802.11b standard reserves 14 frequency channels for use with wireless APs. You can use any other channel instead of the one that you are using.

QUESTION NO: 235

A network technician is setting up a wireless access point that would only allow a certain laptop to be able to access the WAP. By using ACL, which of the following would be filtered to ensure only the authorized laptop can access the WAP?

- A. NetBIOS name filtering
- B. IP address filtering
- C. MAC address filtering
- D. Computer name filtering

Answer: C

Explanation:

MAC Filtering (or EUI filtering, or layer 2 address filtering) refers to a security access control method whereby the 48-bit address assigned to each network card is used to determine access to the network.

MAC addresses are uniquely assigned to each card, so using MAC filtering on a network permits

and denies network access to specific devices through the use of blacklists and whitelists. While the restriction of network access through the use of lists is straightforward, an individual person is not identified by a MAC address, rather a device only, so an authorized person will need to have a whitelist entry for each device that he or she would use to access the network.

QUESTION NO: 236

Which of the following is the BEST way to prevent new users from connecting to a wireless access point, but still allow already connected users to continue to connect?

- A. Create a MAC filter containing the current users.
- B. Turn off SSID broadcast.
- C. Change the encryption type to AES 256-bit for current users.
- D. Reduce the signal strength to 0 percent.

Answer: A

Explanation:

MAC Filtering (or EUI filtering, or layer 2 address filtering) refers to a security access control method whereby the 48-bit address assigned to each network card is used to determine access to the network.

MAC addresses are uniquely assigned to each card, so using MAC filtering on a network permits and denies network access to specific devices through the use of blacklists and whitelists. While the restriction of network access through the use of lists is straightforward, an individual person is not identified by a MAC address, rather a device only, so an authorized person will need to have a whitelist entry for each device that he or she would use to access the network.

QUESTION NO: 237

A network administrator is tasked with deploying a company-wide wireless system which allows for accurate tracking of employees' wireless device locations via WAP triangulation. Which of the following is the MOST important aspect of the deployment?

- A. WAP placement
- B. TX/RX channel
- C. Signal strength
- D. Transmission power

Answer: A

Explanation:

Before going ahead with the deployment, the first thing that need to be check is where you are going to place your wireless router so that you can have internet connectivity from every location that you need.

QUESTION NO: 238

A network administrator needs to implement a monitoring tool and be able to send log information to a server and receive log information from other clients. Which of the following should be implemented? (Select TWO).

- A. SNMP
- B. Network sniffer
- C. Syslog
- D. System log
- E. History log

Answer: A,C

Explanation:

Simple Network Management Protocol (SNMP) is an "Internet-standard protocol for managing devices on IP networks". Devices that typically support SNMP include routers, switches, servers, workstations, printers, modem racks and more. It is used mostly in network management systems to monitor network-attached devices for conditions that warrant administrative attention.

Syslog is a standard for computer message logging. It permits separation of the software that generates messages from the system that stores them and the software that reports and analyzes them.

QUESTION NO: 239

A network administrator must ensure that both the server and the client are authenticated to the wireless system before access is granted. Which of the following should be implemented to meet this requirement?

- A. EAP-PEAP
- B. MAC ACL

- C. EAP-TTLS
- D. MS-CHAPv2

Answer: C

Explanation:

Extensible Authentication Protocol, or EAP, is an authentication framework frequently used in wireless networks and Point-to-Point connections. EAP is an authentication framework providing for the transport and usage of keying material and parameters generated by EAP methods.

QUESTION NO: 240

A technician has low signal strength connecting two wireless bridges. Which of the following could be the problem?

- A. Low PoE wattage
- B. Opposing antenna polarizations
- C. Short distance between antennas
- D. WPA 2 encryption

Answer: B

Explanation:

The polarization of an antenna is the orientation of the electric field (E-plane) of the radio wave with respect to the Earth's surface and is determined by the physical structure of the antenna and by its orientation. It has nothing in common with antenna directionality terms: "horizontal", "vertical", and "circular". Thus, a simple straight wire antenna will have one polarization when mounted vertically, and a different polarization when mounted horizontally.

QUESTION NO: 241

Which of the following is a terminal emulator used to manage a network device?

- A. VPN
- B. IDS
- C. PuTTY
- D. IPS

Answer: C

Explanation:

PuTTY is a free and open-source terminal emulator, serial console and network file transfer application. It supports several network protocols, including SCP, SSH, Telnet and rlogin.

QUESTION NO: 242

A network administrator suspects a broadcast storm is causing performance issues on the network. Which of the following would be used to verify this situation?

- A. Environmental monitor
- B. Multimeter
- C. Toner probe
- D. Protocol analyzer

Answer: D

Explanation:

A "Protocol analyzer" is a tool (hardware or software) used to capture and analyze signals and data traffic over a communication channel.

QUESTION NO: 243

Ann, a technician, is installing network cables for an office building. Some of the cables are not showing active on the switch even when moved to different ports. Which of the following is MOST likely the cause?

- A. Port speed mismatch
- B. Faulty F-connectors
- C. Bad wiring
- D. Bad switch

Answer: C

Explanation:

Bad wiring refers to the state when you do not follow a pattern and everything seems messed up and you are not able to figure out the cause.

QUESTION NO: 244

After a new user moves furniture into a cubicle, the computer does not connect to the network any longer.

Which of the following would be the MOST likely reason? (Select TWO).

- A. Bad Ethernet switch port
- B. TX/RX reversed
- C. Bad connectors
- D. Bad patch cable
- E. Mismatched MTU

Answer: C,D

Explanation:

It could be problem with the bad connector because the user just moved furniture to the cubicle and it is quite possible that the movement of the furniture has created problem by disrupting the cabling and connections. These two are the important things which can be broken down whenever there is a physical movement.

QUESTION NO: 245

Which of the following performance benefits would multiple domain controllers BEST provide?

- A. Fault tolerance
- B. Caching engine
- C. Proxy server
- D. Quality of service

Answer: A

Explanation:

Fault-tolerant design is a design that enables a system to continue its intended operation, possibly at a reduced level, rather than failing completely, when some part of the system fails. The term is most commonly used to describe computer-based systems designed to continue more or less fully operational with, perhaps, a reduction in throughput or an increase in response time in the event of some partial failure

QUESTION NO: 246

After a network technician has added a new workstation and cabling to the network, users report the network is very slow. The activity lights on all switches are blinking rapidly, showing large amounts of traffic. Which of the following is the BEST explanation for the traffic?

- A. The new user is downloading large files.
- B. The router failed, flooding the network with beacons.
- C. The new user's IP address is a duplicate.
- D. A switching loop was created.

Answer: D

Explanation:

A Switching loop or Bridge loop occurs in computer networks when there is more than one Layer 2 (OSI model) path between two endpoints (e.g. multiple connections between two network switches or two ports on the same switch connected to each other). The loop creates broadcast radiation as broadcasts and multicasts are forwarded by switches out every port, the switch or switches will repeatedly rebroadcast the broadcast messages flooding the network.

QUESTION NO: 247

A company has recently allowed its employees to telecommute two days a week. The employees MUST have a minimum of 1Mbps non-shared connection to the Internet. Which of the following MUST the employees have at their home in order to connect to the Internet?

- A. ISDN
- B. Cable modem
- C. DSL
- D. Dial-up networking

Answer: C

Explanation:

Digital subscriber line (DSL, originally digital subscriber loop) is a family of technologies that provide Internet access by transmitting digital data over the wires of a local telephone network.

QUESTION NO: 248

Some visitors are unable to access the wireless network. The network's wireless infrastructure is

comprised of three different buildings with the configurations listed below. Wireless network in Building A and C is used exclusively for internal employees and Building B is used for visitors and requires no additional configuration on their devices. Which of the following settings would need to be modified to provide wireless access to all visitors?

Building A Building B Building C

Channel: 2 Channel: 6 Channel: 11

Encryption: WPA2 Encryption: WPA2 Encryption: WPA2

- A. Encryption set to Open in all Buildings
- B. Encryption set to Open in Building B
- C. Encryption set to WEP in Building B
- D. Channel set to 11 in Building B

Answer: B

Explanation:

Because the building B is in the middle, the wireless access router will have reachability to the building A and C. Now, the only thing that we need to do is to open the Wireless access on B for the guest users for the WAP in B so that the users coming to building A and C can get access to internet using the open connection.

QUESTION NO: 249

Some employees are unable to maintain a wireless network connection. The network's wireless infrastructure is comprised of three different buildings with the configurations listed below. Wireless network in Building A and C is used exclusively for internal employees and Building B is used for visitors and requires no additional configuration on their devices. Which of the following settings would need to be modified to provide the BEST wireless experience for all employees as they move between buildings?

Building A Building B Building C

Channel: 1 Channel: 6 Channel: 11

Encryption: WPA2 Encryption: Open Encryption: WPA2

SSID. Corp SSID. Guest SSID. Sales

- A. Change Channel in Building B to 7
- B. Change Encryption in Building B to match A and C
- C. Change Channel in Building C to 1

D. Change SSID in Building C to match Building A

Answer: D

Explanation:

The configuration difference between users in building A and C is that they have same encryption however the SSID is different so the user has to manually authenticate and connect to the network whenever he will move between buildings. If the SSID's are same then he will not have to authenticate himself again and he will get automatic connectivity.

QUESTION NO: 250

A technician has been given the task to install a wireless network in a user's home. Which of the following should the technician consider when implementing the network? (Select TWO).

- A. That there is strong encryption enabled and configured on the access point.
- B. The user's home network has a correctly completed WHOIS entry.
- C. The access point is broadcasting the SSID based upon manufacturer's standards.
- D. There are no conflicts of channels in use by neighboring wireless networks.
- E. There are redundant internal DNS names set in the access point's settings.
- F. That the access point's MAC address is properly set in its configuration settings.

Answer: A,D

Explanation:

Strong encryption is required to keep the user's internet safe and secure so as to avoid misuse of the internet connection and to ensure that channel conflicts are not there so that the signals do not compete with each other and user start to face intermittent connection.

QUESTION NO: 251

A technician working for a company with a wireless network named WirelessA notices a second wireless network named WirelessB. WirelessB is MOST likely a:

- A. man-in-the-middle attack
- B. rogue access point
- C. evil twin
- D. packet sniffer

Answer: B

Explanation:

A rogue access point is a wireless access point that has either been installed on a secure company network without explicit authorization from a local network administrator, or has been created to allow a hacker to conduct a man-in-the-middle attack.

QUESTION NO: 252

A user cannot access the LAN after working successfully most of the day. Which of the following should the network administrator check FIRST?

- A. VLAN settings
- B. History logs
- C. Patch cable
- D. Port security

Answer: C

Explanation:

A patch cable or patch cord or patch lead is an electrical or optical cable used to connect ("patch-in") one electronic or optical device to another for signal routing.

QUESTION NO: 253

Which of the following can be used to limit wireless network access to a single computer?

- A. Configure PPP
- B. Packet sniffing
- C. MAC address filtering
- D. Omni-directional antennas

Answer: C

Explanation:

Wireless access can be filtered by using the **Media Access Control (MAC)** addresses of the wireless devices transmitting within your wireless network. You can either permit or prevent specific wireless computers and devices access to your wireless network.

QUESTION NO: 254

A small business owner is setting up a SOHO office. The business owner needs one device that will allow for Internet access, trunk VLANs, translate multiple private IP addresses into public IP addresses, and filter packets. Which of the following network devices will allow for all functions?

- A. A VPN concentrator
- B. A switch
- C. A router
- D. A firewall

Answer: C

Explanation:

A router is a device which is capable of performing entire task required by the business owner.

QUESTION NO: 255

A Linux-based workstation is unable to connect to an IP printer on the same network segment. The printer IP address settings have been verified. How would a network technician verify IP address settings on the Linux-based workstation?

- A. Run the dig command on the workstation.
- B. Run the nslookup command on the workstation.
- C. Run the ipconfig command on the workstation.
- D. Run the ifconfig command on the workstation.

Answer: D

Explanation:

The "ifconfig" command allows the linux/unix operating system to setup network interfaces and allow the user to view information about the configured network interfaces.

QUESTION NO: 256

Users have been stating that they need to logon to too many applications and web apps with different credentials that use different rule sets. Which of the following would BEST address these concerns?

- A. Alter the domain account login policies to reflect the most common application rule sets.
- B. Ensure that the user accounts are properly configured in domain services.
- C. Implement a software solution that facilitates single sign-on authentication.

D. Increase the time between mandatory password changes by a factor of three.

Answer: C

Explanation:

A single signon permits a user to enter one name and password in order to access multiple applications

QUESTION NO: 257

A network consultant arrives at a customer's site to troubleshoot their email server. The server is running a Linux operating system, but the consultant is only familiar with Windows operating systems. Which of the following troubleshooting steps should the consultant take?

- A. Document findings
- B. Identify the problem
- C. Escalate the problem
- D. Establish a plan of action

Answer: C

Explanation:

It is better to escalate the problem if you are not aware of the situation as it saves downtime and keeps customer happy.

QUESTION NO: 258

A network administrator is adding 24 - 802.3af class 2 VoIP phones and needs to purchase a single PoE switch to power the phones. Which of the following is the MINIMUM PoE dedicated wattage the switch supports to power all of the phones at full power?

- A. 96W
- B. 168W
- C. 240W
- D. 369.6W

Answer: B

Explanation:

The switch supports 168W to power all the phones at full power.

QUESTION NO: 259

Ann, a client, shares half of a rectangular floor plan with another company and wishes to set up a secure wireless network. The installed antenna limits the signal to her half of the floor. Through analysis, the frequency and channels of surrounding wireless networks have been determined and configuration changes made accordingly. Which of the following would be the NEXT step in setting up this secure wireless network?

- A. Decrease signal strength on the antenna
- B. Change the wireless channel on the WAP
- C. Change the device placement to further obfuscate the signal
- D. Set up encryption on the WAP and clients

Answer: D

Explanation:

The encryption will help the clients and server to uniquely identify themselves in an interfering environment.

QUESTION NO: 260

A technician is reviewing the following company diagram to determine proper connectivity settings:

Device	Connection Type	Distance
ServerA	CAT6e	380ft
LaptopB	802.11g	310ft
PC1	CAT5	300ft
LaptopC	802.11n	100ft
ServerE	Single Mode	500ft

Which of the following device configurations is out of specifications?

- A. LaptopC
- B. ServerE
- C. LaptopB
- D. ServerA
- E. PC1

Answer: D

Explanation:

no legitimate Category 6e standard exists

QUESTION NO: 261

A technician is reviewing the following aggregated information on a server to determine the cause of a user's connection problem:

Facility	Severity	Mnemonic	Message
FW1	4	FPD	Packet discarded
AP2	7	AUTH	User disassociated
SW1	7	PUPD	Port changed from up to down

Which of the following is the technician reviewing?

- A. Syslog server logs
- B. Application logs
- C. Network sniffer logs
- D. SNMPv2 queries

Answer: A

Explanation:

Syslog server logs are the logs that are saved on a system whenever an instance happens of the wireless device. Reviewing the logs can help him understand the behavior of the WAP as well as the client.

QUESTION NO: 262

When a packet that is entering a switch port is encapsulated, which of the following is the switch performing?

- A. 802.1q
- B. Collision avoidance
- C. Port mirroring
- D. STP

Answer: A

Explanation:

Encapsulation is the term associated with 802.1q which is enabled by default on many devices.

QUESTION NO: 263

A technician has been dispatched to investigate an issue where several users in the same aisle have stated they have had no network connection for over an hour. When the technician gets there, the network seems to be up and running. Which of the following should the technician do NEXT?

- A. Ask the users for more information, such as which applications were not functioning.
- B. Power-cycle the switch that the users share to clear out cached DNS records.
- C. Escalate the issue to the network administrator to have their domain credentials reset.
- D. Close and document the service call, as there was no actual issue affecting the users.

Answer: A

Explanation:

Because the system was up and running when the technician reached there, he can ask for applications that were not working or can ask for more information so that he can isolate the problem. Power cycling will not help because the system is already up and recycling can wipe out logs. Escalation will also not help because the system is now up and running. Closing the call will be unfair because the same instance can occur again.

QUESTION NO: 264

A technician has been dispatched to investigate connectivity problems of a recently renovated office. The technician has found that the cubicles were wired so that the network cables were run inside the conduit with the electrical cabling. Which of the following would MOST likely resolve the connectivity issue?

- A. Power-cycle the computers and switches to re-establish the network connection.
- B. Re-run the network cabling through the ceiling alongside the lights to prevent interference.
- C. Test the wiring in the network jacks for faults using a cable verifier.
- D. Re-run the network cabling so that they are 12 inches or more away from the electrical lines.

Answer: D

Explanation:

The electric cables create electric field around them and can interrupt in internet connectivity as well. It is quite possible that this is the cause which is creating the connectivity issue.

QUESTION NO: 265

A company is looking for the simplest solution to help prioritize VoIP traffic on its congested network. Which of the following would BEST accomplish this?

- A. MPLS
- B. Caching engines
- C. QoS
- D. Load balancing

Answer: C

Explanation: QoS is the service where you can prioritize traffic running over one protocol as compared to the other. It is very similar to the term where you are opening a VIP queue for allowing that traffic to pass.

QUESTION NO: 266

A technician has received a trouble ticket from a user who has intermittent wireless access. Moving the computer farther from the WAP results in a more stable connection. Which of the following is MOST likely the cause of this instability?

- A. Wrong encryption type
- B. SSID mismatch
- C. Signal bounce
- D. Incorrect channel

Answer: C

Explanation:

Bouncing is the tendency of any two metal contacts in an electronic device to generate multiple signals as the contacts close or open.

QUESTION NO: 267

Compare the settings below to determine which of the following issues is preventing the user from connecting to a wireless network.

API (a/b/g/n)-----
SSID: iCorpOne

WEP Key: 337D1FAB10

Index: 1

Mode: Mixed

Channel: 1

UserPC Wireless-G-----
SSID: icorpone

WEP Key: 337d1fab10

Index: 1

Mode: 802.11G

Channel: Auto

Which of the following settings is incorrect on the client?

- A. The mode is incorrect
- B. SSID Mismatch
- C. Incorrect WEP Key
- D. Channel is set incorrectly

Answer: B

Explanation:

the first thing which will be checked is the SSID and it is case sensitive but in the above shown example, it is not same so it will stop user from connecting.

QUESTION NO: 268

Which of the following protocols is MOST commonly associated with VoIP?

- A. LDAP
- B. HTTPS
- C. SIP
- D. SCP

Answer: C

Explanation:

The Session Initiation Protocol (SIP) is a signaling communications protocol, widely used for controlling multimedia communication sessions such as voice and video calls over Internet Protocol (IP) networks.

QUESTION NO: 269

Which of the following commands will provide an administrator with the number of hops a packet takes from host to host?

- A. nslookup
- B. ping
- C. traceroute
- D. route

Answer: C

Explanation:

In computing, traceroute is a computer network diagnostic tool for displaying the route (path) and measuring transit delays of packets across an Internet Protocol (IP) network. The history of the route is recorded as the round-trip times of the packets received from each successive host (remote node) in the route (path); the sum of the mean times in each hop indicates the total time spent to establish the connection.

QUESTION NO: 270

Which of the following is needed when using WPA2-Enterprise wireless encryption?

- A. TFTP
- B. RADIUS
- C. LDAP
- D. IPSec

Answer: B

Explanation:

The WPA2 standard supports two different authentication mechanisms: one using standard RADIUS servers and the other with a shared key, similar to how WEP works.

QUESTION NO: 271

A technician has a network with a mix of newer and older equipment. Which of the following settings would dynamically configure whether to use full or half duplex?

- A. Transmission speed
- B. Frequency
- C. Auto-negotiate
- D. Distance

Answer: C

Explanation:

Autonegotiation is an Ethernet procedure by which two connected devices choose common transmission parameters, such as speed, duplex mode, and flow control. In this process, the connected devices first share their capabilities regarding these parameters and then choose the highest performance transmission mode they both support.

QUESTION NO: 272 DRAG DROP

A customer's email server is not sending emails. Arrange the troubleshooting steps in the order the technician should perform them:

1	<input type="text"/>	Implement the solution
2	<input type="text"/>	Verify full system functionality
3	<input type="text"/>	Establish a theory of probable cause
4	<input type="text"/>	Determine if any recent changes have been made to the server
5	<input type="text"/>	Document findings, actions, and outcomes
6	<input type="text"/>	Establish a plan of action to resolve the problem
7	<input type="text"/>	Test the theory to determine cause
8	<input type="text"/>	Implement preventative measures

Answer:

1	Determine if any recent changes have been made to the server	Implement the solution
2	Establish a theory of probable cause	Verify full system functionality
3	Test the theory to determine cause	Establish a theory of probable cause
4	Establish a plan of action to resolve the problem	Determine if any recent changes have been made to the server
5	Implement the solution	Document findings, actions, and outcomes
6	Verify full system functionality	Establish a plan of action to resolve the problem
7	Implement preventative measures	Test the theory to determine cause
8	Document findings, actions, and outcomes	Implement preventative measures

Explanation:

- 1 Determine if any recent changes have been made to the server
- 2 Establish a theory of probable cause
- 3 Test the theory to determine cause
- 4 Establish a plan of action to resolve the problem
- 5 Implement the solution
- 6 Verify full system functionality
- 7 Implement preventative measures
- 8 Document findings, actions, and outcomes

QUESTION NO: 273 DRAG DROP

GigSwitch1 is currently configured with a speed of 100 and Duplex is set to Auto on all interfaces.

Interface 2 will be connected to GigSwitch2 which is used for all departments. Interface 1 will be used for HR traffic only.

GigSwitch1 needs to be configured with the following parameters:

Configure the necessary protocol to prevent switching loops

Configure GigSwitch1 with a /24 IP address for management

Traffic across Interface 1 needs to be forced to accept and receive up to 100Mbps data at the same time

Traffic across Interface 2 needs to be forced to use Gigabit speeds and maximum performance

Drag and drop the appropriate configurations to their corresponding requirements. All placeholders must be filled. Not all configurations will be used.

Global Switch Configuration	Interface 1	Interface 2
1 <input type="text"/>	1 <input type="text"/>	1 <input type="text"/>
2 <input type="text"/>	2 <input type="text"/>	2 <input type="text"/>
100/Full	1000/Full	IP Address 192.168.1.1 255.255.255.240
100/Auto	1000/Auto	VLAN 10 HR
Auto/Full	IP Address 192.168.1.1 255.255.240.0	VLAN 20 Sales
Auto/Half	IP Address 192.168.1.1 255.255.255.0	VLAN 30 OPS
		VLAN trunking/ multiplexing
		Enable STP
		Enable AAA
		Enable SNMPv3

Answer:

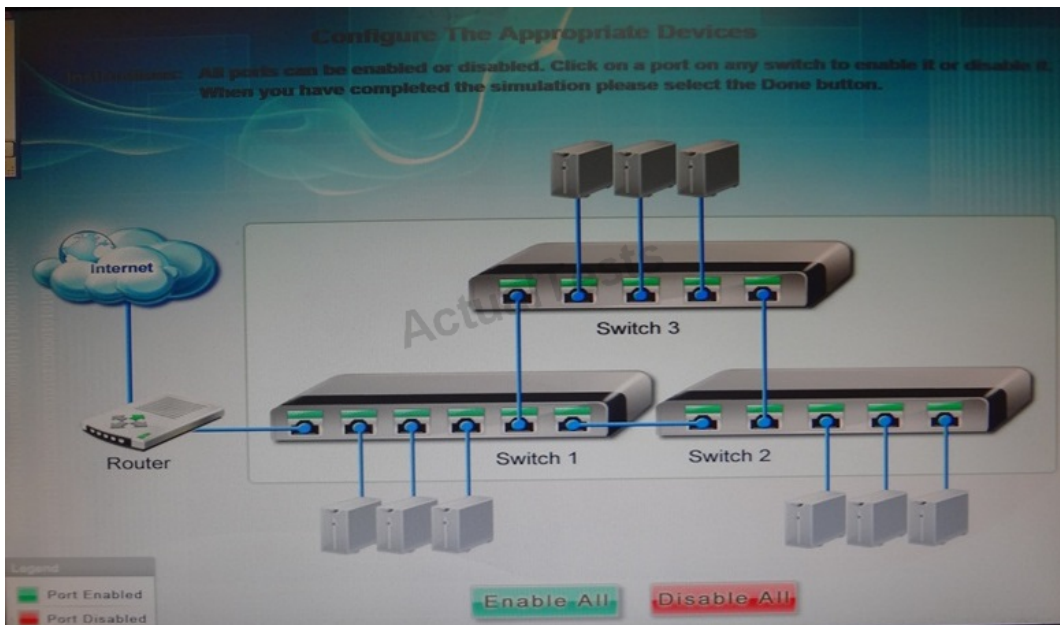
Global Switch Configuration	Interface 1	Interface 2
1 IP Address 192.168.1.1 255.255.255.240	1 VLAN 10 HR	1 VLAN trunking/ multiplexing
2 Enable STP	2 100/Full	2 1000/Full
100/Full	1000/Full	IP Address 192.168.1.1 255.255.255.240
100/Auto	1000/Auto	VLAN 10 HR
Auto/Full	IP Address 192.168.1.1 255.255.240.0	VLAN 20 Sales
Auto/Half	IP Address 192.168.1.1 255.255.255.0	VLAN 30 OPS
		Enable AAA
		Enable SNMPv3

Explanation:

Global Switch Configuration	Interface 1	Interface 2
1 IP Address 192.168.1.1 255.255.255.0	1 VLAN 10 HR	1 VLAN trunking/ multiplexing
2 Enable STP	2 100/Full	2 1000/Full
100/Auto	1000/Auto	IP Address 192.168.1.1 255.255.255.240
Auto/Full	IP Address 192.168.1.1 255.255.240.0	VLAN 20 Sales
Auto/Half	VLAN 30 OPS	Enable AAA
		Enable SNMPv3

QUESTION NO: 274 CORRECT TEXT

Workstations are unable to access the internet after a recent power outage. Configure the appropriate devices to ensure All workstations have internet connectivity.



Answer: The switches are not connected properly. Connect Switch 1 to switch three on the last port and then connect the last port of the switch 3 to the first port of switch 2. In this way the switches will be connected properly. Click Enable All to enable the switches

QUESTION NO: 275 CORRECT TEXT

Wireless network users recently began experiencing speed and performance issues after access point 2 (AP2) was replaced due to faulty hardware. The original network was installed according to a consultant's specifications and has always worked without a problem.

You a network technician, have been tasked with evaluating the situation and resolving the issues to improve both performance and connectivity. Refer to the following diagram and perform any Necessary changes to the wireless and wired infrastructure by adjusting devices.

NotE. Adjust the LEAST number of devices needed to fix the issue all blue icons in the image are clickable.



Wireless AP Configuration Settings

http://ap1.setup.do

Basic Configuration

Access Point Name:

IP Address: /

Gateway:

SSID:

SSID Broadcast: Yes No

Wireless

Mode:

Channel:

Wired

Speed: Auto 100 1000

Duplex: Auto Half Full

Security

Security Settings: None WEP WPA

Key or Passphrase:

http://ap2.setup.do

Wireless AP Configuration Settings

Basic Configuration

Access Point Name: AP2
IP Address: 192.168.100.152 / 24
Gateway: 192.168.100.1
SSID: CorpNET
SSID Broadcast: Yes No

Wireless

Mode: B
Channel: 1

Wired

Speed: Auto 100 1000
Duplex: Auto Half Full

Security

Security Settings: None WEP WPA
Key or Passphrase: 123456789b

Reset Submit

http://ap3.setup.do

Wireless AP Configuration Settings

Basic Configuration

Access Point Name: AP3
IP Address: 192.168.100.153 / 24
Gateway: 192.168.100.1
SSID: CorpNET
SSID Broadcast: Yes No

Wireless

Mode: G
Channel: 11

Wired

Speed: Auto 100 1000
Duplex: Auto Half Full

Security

Security Settings: None WEP WPA
Key or Passphrase: 123456789b

Reset Submit



Answer: AP2 configuration is not correct. The wireless mode should be 'G' and channel should be '11'. For the wired interface, the speed should be set to 100 and duplex to 'Full'. Click 'Submit'.

QUESTION NO: 276

The DHCP server leases IP addresses 10.162.233.158 to WBAC11 for a period of 14 days. At which of the following times would WBAC11 send an initial request to the DHCP server to renew the IP address lease?

- A. Day 4
- B. Day 6
- C. Day 8
- D. Day 10

Answer: C

Explanation:

QUESTION NO: 277

A technician is trying to add another switch to the network with multiple VLANs. Which of the following should the technician configure on the interface to allow multiple VLANs?

- A. Mirroring
- B. Trunking
- C. Authenticating
- D. Bonding

Answer: B

Explanation:

QUESTION NO: 278

A user calls the helpdesk to report not being able to access network resources over the company's Wi-Fi connection. During information gathering, the user mentions that the wireless network their computer is signed into is not the same name as it had been previously. Which of the following is the underlying cause?

- A. SSID mismatch
- B. Incorrect WPA key
- C. Signal bounce
- D. Antenna placement

Answer: A

Explanation:

QUESTION NO: 279

A user moves from one office to another. When the user logs onto their computer, it has local access to shared drives but no Internet access. A technician determines that the computer has an IP address in the wrong subnet. Which of the following is MOST likely the cause?

- A. Incorrect VLAN
- B. MTU mismatch
- C. Hijacked HOSTS file
- D. Missing routes

Answer: A

Explanation:

QUESTION NO: 280

A consultant is installing new WAPs for an office using wall mounts. Which of the following is the BEST location for the new boxes for signal strength and coverage?

- A. Above the suspended ceiling with antennas positioned upward.

- B. Close to the floor level to allow the signal to traverse the floor laterally.
- C. Close to the suspended ceiling, but not above.
- D. Above the suspended ceiling with antennas positioned downward.

Answer: C

Explanation:

QUESTION NO: 281

A company has multiple WAPs within close proximity to each other to allow users to move about seamlessly through the building with their laptops, without losing any connection. However, this has had the opposite effect, causing any user that is close to two of the access points to constantly reconnect to the wireless network. Which of the following should be changed on all the WAPs to allow this to work as the customer intended?

- A. Change the SSID to be unique for each WAP.
- B. Change the antenna direction to be unique for each WAP.
- C. Change the encryption method to be unique for each WAP.
- D. Change the channel to be unique for each WAP.

Answer: D

Explanation:

QUESTION NO: 282

A user is unable to communicate with any local network resources, but is connected to the wireless network and can access the Internet. The network technician notices that the laptop has an incorrect IP address, even though it shows it is connected. Which of the following is the MOST likely cause?

- A. Signal strength
- B. Interference
- C. AP placement
- D. Incorrect SSID

Answer: D

Explanation:

QUESTION NO: 283

An administrator has set up a NIPS and connected it to the same switch as the internal firewall interface and the internal router. The device, however, only detects traffic from itself to the firewall or router. Which of the following explains why additional corporate traffic cannot be detected?

- A. The spanning tree protocol is preventing the traffic.
- B. Port Mirroring is set up incorrectly.
- C. The switch needs to be a layer 3 switch.
- D. The traffic is in a classless IP range and not classful IP range.

Answer: B

Explanation:

QUESTION NO: 284

A company wants to ensure that a wireless signal from their WAP only sends down one specific corridor. Which of the following can be done to achieve this?

- A. Disable the SSID.
- B. Change the broadcast channel.
- C. Lower the signal strength.
- D. Change the antennas.

Answer: D

Explanation:

QUESTION NO: 285

Which of the following DHCP options is used to exclude IP addresses from being distributed to other computers?

- A. Reservations
- B. Suffixes
- C. Leases
- D. Gateways

Answer: A

Explanation:

QUESTION NO: 286

A new WAP is configured to only use 802.11g with SSID broadcasts enabled. The encryption is set to WPA and the key is given to the user. A user near the WAP is using a laptop equipped with a 5GHz wireless card and is not able to see the SSID. Which of the following is the problem?

- A. Latency
- B. Incorrect encryption type
- C. EUI-64
- D. Incompatible hardware

Answer: D

Explanation:

QUESTION NO: 287

An IP address assigned from a DHCP server is said to be which of the following?

- A. Hybrid
- B. Dynamic
- C. Secure
- D. Static

Answer: B

Explanation:

QUESTION NO: 288

A user is trying to connect to the wireless network in the office but is unable to establish a consistent connection. The computer alternates connecting between several similarly configured access points. Which of the following would be the BEST way to address this issues?

- A. Adjust the signal strength of the access points with minimal coverage overlap.
- B. Increase the pool in each of the access points to avoid running out of IPs.
- C. Configure each access point to use a different method of encryption than the others.
- D. Reconfigure each of the access points so that they broadcast different SSIDs.

Answer: A

Explanation:

QUESTION NO: 289

After deploying a network switch, the network administrator is unable to remotely administer the device. The network administrator notices that the switch has the following configuration. Which of the following is the MOST likely cause of this issue?

Management LAN: 192.168.10.0/24

Management interface. 192.168.10.2 255.255.255.0

Default gateway: 192.168.11.1

STP is enabled

- A. VLAN assignment
- B. Wrong subnet mask
- C. Switching loop
- D. Wrong gateway

Answer: D

Explanation:

QUESTION NO: 290

Users have contacted the helpdesk stating that they have been having difficulties staying connected to the wireless network. They report that their laptops connect to one access point, drop the connection and then connect to a different access point in a never-ending cycle. Which of the following would BEST remediate this?

- A. Reconfigure the access points from 802.11b to 802.11g.
- B. Establish procedures which limit user connections during peak hours.
- C. Configure the access points so that they all use different SSIDs.
- D. Move one or more access points, minimizing signal overlap.

Answer: D

Explanation:

QUESTION NO: 291

A technician has set up a wired network IP scheme with the following specifications:

DHCP: 192.168.1.100-150

Gateway: 192.168.1.1

DNS: 192.168.1.1

Which of the following is represented by this addressing scheme?

- A. Static
- B. QoS
- C. Dynamic
- D. Dynamic with static reservation

Answer: C

Explanation:

QUESTION NO: 292

If a technician does not assign an IP address to a device, the DHCP server will assign the device a:

- A. static IP address.
- B. reservation.
- C. dynamic IP address.
- D. MAC address.

Answer: C

Explanation:

QUESTION NO: 293

A technician has spent most of the day replacing a server running DHCP. Some of the users have begun to call the help desk stating that Internet connection stopped working even after rebooting. Upon investigation, the users' PCs with issues all have IP addresses that start with 169.254.x.x. The technician completes the replacement and powers on the new DHCP server. Which of the following is the BEST way to provide the PCs with issues a new IP address?

- A. Statically assign a legitimate IP address, and then set the PCs' NICs to DHCP
- B. Inform each user to replace 169.254 with 192.168
- C. Wait five minutes until the PC resends a DHCP request
- D. Run netstat on each PC and then reboot into safe mode

Answer: C

Explanation:

QUESTION NO: 294

Ann, a new user, is unable to communicate on the network from her computer. A technician has verified that the cables are functioning properly. Based on the information below, which action should the technician take to correct Ann's problem?

Computer_ASwitch_A

IP: 10.0.0.60Int VLAN10

SM: 255.255.255.0IP address 10.0.0.1/28

GW: 10.0.0.1Speed 100 Duplex Full

- A. Change the duplex on the switch interface to half
- B. Change the speed on the switch interface to 10Mbps
- C. Change the subnet mask of the computer to 255.255.255.240
- D. Change the IP address of the computer to 10.0.0.12

Answer: D

Explanation:

QUESTION NO: 295

A client has just leased a new office space in a busy commercial building and would like to install a wireless network. Several other tenants are on the same floor. Multiple wireless networks are present in the building. Which of the following can be changed on the client's wireless network to help ensure that interference from other wireless networks is at a minimum?

- A. WPA encryption key selection
- B. Channel selection
- C. Antenna types
- D. Disable SSID

Answer: B

Explanation:

QUESTION NO: 296

Which of the following is the reason why a company's network may contain a DHCP server?

- A. To assign IP addresses to devices on the network
- B. To convert IP addresses to fully qualified domain names
- C. To provide POP3 and IMAP email functionality
- D. To allow secure remote access

Answer: A

Explanation:

QUESTION NO: 297

Ann, a technician, installs a wireless router in a network closet in a large office. She then configures all workstations in various offices on that floor to use the wireless connection. Maximum connection speed at each workstation is 54 Mbps. Some users complain that their network connection is very slow. Which of the following is MOST likely the problem?

- A. Workstations were configured with the wrong connection speed on the wireless adapter.
- B. Users with a slow connection are too far away from the wireless router.
- C. Users that cannot connect are configured on the wrong channel.
- D. Wireless network SSID is incorrect.

Answer: B

Explanation:

QUESTION NO: 298

A network technician is designing a SOHO environment where cost is a consideration. The requirements include access to the Internet and access to the guest house which is 100 feet away. The location of the Internet modem is located in the main house. Which of the following is the BEST option to accomplish these requirements?

- A. Use two combined Internet/router/wireless devices, one in each house.

- B. Use a Layer 3 switch in the main house and a combined Internet/router/wireless device in the guest house.
- C. Use a combined Internet/router/wireless device in the main house and a wireless access point in the guest house.
- D. Use a single combined Internet/router/wireless device at the guest house.

Answer: C

Explanation:

QUESTION NO: 299

Which of the following would allow for a specific device to receive the same IP address from a DHCP server?

- A. Scope
- B. Reservation
- C. Suffix
- D. Lease

Answer: B

Explanation:

QUESTION NO: 300

A technician is setting up a wireless access point and wants to keep it as secure as possible. Which of the following settings should be configured for security purposes? (Select TWO).

- A. Channel
- B. Encryption
- C. Diversity
- D. SSID broadcast
- E. Frequency

Answer: B,D

Explanation:

QUESTION NO: 301

A network administrator wishes to limit the number of potential wireless clients to 20 on a specific

AP. Which of the following settings needs to be changed?

- A. The network address translation IP range.
- B. The signal strength of the router.
- C. The DHCP lease time.
- D. The number of allowable MAC addresses.

Answer: D

Explanation:

QUESTION NO: 302

A technician would like to connect two separate LAN networks at a small business for a short period of time, to share files. The connection needs to be temporary, and is physically impossible using standard network cabling. Which of the following is the BEST way to connect the networks in this situation?

- A. Wireless repeater
- B. Wireless bridge
- C. Bluetooth
- D. RADIUS server

Answer: B

Explanation:

QUESTION NO: 303

The wireless network inside a large training room has been saturated with client requests. Most of the client requests are coming from smartphones and laptops. The network technician has been tasked with increasing the performance of the wireless access point. Which of the following would BEST accomplish this?

- A. Switch the channel
- B. Change frequencies
- C. Channel bonding
- D. Increase the signal

Answer: C

Explanation:

QUESTION NO: 304

A SOHO had their wireless network breached on several occasions. The user turned off the SSID and enabled WEP encryption, but breaches are still occurring. Which of the following will improve security and MOST likely prevent future breaches?

- A. Turn down the signal strength
- B. Replace the WAP and enable WEP
- C. Change both the SSID and WEP key
- D. Enable WPA2 encryption

Answer: D

Explanation:

QUESTION NO: 305

During a blizzard, a technician decides to work from home but is unable to connect to the company's network. Which of the following is MOST likely taking place at the office?

- A. Switching loop
- B. Wrong DNS
- C. Power failure
- D. Duplicate IP address

Answer: C

Explanation:

QUESTION NO: 306

A network administrator needs to deploy seven equally spaced WAPs along an underground tunnel. Which of the following is the BEST channel design to avoid interference?

- A. 1, 3, 5, 7, 9, 11, 1
- B. 1, 6, 11, 1, 1, 6, 11
- C. 1, 11, 1, 11, 1, 11, 1
- D. 11, 1, 6, 11, 1, 6, 11

Answer: D

Explanation:

QUESTION NO: 307

A network administrator is configuring PXE boot to reimage a computer lab. Which of the following must be configured on the existing DHCP server to specify the IP address of the imaging server from which the clients must boot?

- A. Scope
- B. Reservation
- C. Option
- D. Lease

Answer: C

Explanation:

QUESTION NO: 308

During business hours, users at a small office are reporting that all of a sudden they are unable to reach any host on the Internet, but they can still use the network shares to transfer files within the office. Which of the following is the MOST likely cause of the outage?

- A. Wrong gateway
- B. Failed router
- C. Bad switch module
- D. Incorrect VLAN

Answer: B

Explanation:

QUESTION NO: 309

A technician is configuring a new DSL router. The technician can communicate with the LAN, but not the WAN. Which of the following is the MOST likely cause?

- A. Duplicate IP addresses
- B. Bad GBIC
- C. Wrong gateway

D. Switching loop

Answer: C

Explanation:

QUESTION NO: 310

Which of the following antenna types has a flat circular radiation pattern?

A. Diversity

B. Yagi

C. Omni

D. Patch

Answer: C

Explanation:

QUESTION NO: 311

A new employee was given the following information to connect to the corporate wireless network for the first time:

SSID:CorporateWiFi

Encryption:WPA2

Password:SuperSecret!

The user enters the correct SSID and notices that encryption type or password are not required when configuring the laptop in the office, and the laptop successfully connects to the Internet. When the user brings the laptop to the conference room, a pop-up asks for the CorporateWiFi password. Which of the following is the MOST likely cause of this behavior?

A. The laptop wireless network card is incompatible with the conference room WAP.

B. The office walls prevent the employee from making a full connection.

C. A rogue access point was installed by a company employee.

D. MAC filtering is only enabled in the conference room.

Answer: C

Explanation:

QUESTION NO: 312

A network administrator needs to configure a port on the switch that will enable all packets on a particular switch to be monitored. Which of the following would BEST complete this objective?

- A. Traffic shaping
- B. MAC filtering
- C. Port mirroring
- D. VLAN trunking

Answer: C

Explanation:

QUESTION NO: 313

Several users are reporting that they are unable to connect to the network. After further investigation, the network administrator notices that a newly configured Layer 2 device lost its configuration. Which of the following MOST likely caused the issue?

- A. Wrong default gateway
- B. Wrong DNS
- C. Switching loop
- D. Power failure

Answer: D

Explanation:

QUESTION NO: 314

In a newly installed LAN, the network administrator receives many calls about intermittent or slow connectivity to the authentication server. Which of the following could cause this problem? (Select TWO).

- A. VLAN configuration error
- B. Cables too short
- C. Cable crosstalk
- D. Incorrect channel
- E. EMI

F. Wrong subnet mask

Answer: C,E

Explanation:

QUESTION NO: 315

Which of the following wireless parameters may need to be modified when a new cordless telephone is installed?

- A. Encryption type
- B. SSID
- C. IP address
- D. Channel

Answer: D

Explanation:

QUESTION NO: 316

A network administrator is planning to install wireless access points across the enterprise. Which of the following should be considered when installing at remote locations?

- A. PoE
- B. BSSID
- C. MAC filtering
- D. NAT

Answer: A

Explanation:

QUESTION NO: 317

A technician needs to restrict access to a SOHO wireless network to specific devices. Which of the following would MOST likely be used with minimal client configuration?

- A. Port filtering
- B. WEP

- C. MAC address filtering
- D. PoE

Answer: C

Explanation:

QUESTION NO: 318

An office has an 802.11a access point. A technician has been asked to identify devices that are compatible with this AP. Which of the following devices is MOST likely compatible?

- A. An 802.1q SOHO router
- B. An 802.11b tablet computer
- C. An 802.11g laptop
- D. An 802.11n smartphone

Answer: D

Explanation:

QUESTION NO: 319

Which of the following transmission methods do DHCP enabled devices use to request an IP address?

- A. Broadcast
- B. Directed broadcast
- C. Unicast
- D. Multicast

Answer: A

Explanation:

QUESTION NO: 320

An administrator notices that a computer on the network is unable to reach any of the servers by hostname. The computer has connectivity to the network and is able to ping all the devices by IP address. Which of the following can cause the error?

- A. The workstation has a duplicate IP address.
- B. The workstation has been assigned to the wrong VLAN.
- C. The workstation has the wrong gateway configured.
- D. The workstation has the wrong DNS configured.

Answer: D

Explanation:

QUESTION NO: 321

Users are contacting the internal helpdesk, stating that they are having difficulty staying connected to the wireless network. When the technician investigates, it is discovered that the users are having a problem using the wireless network in the company break rooms. Which of the following should the technician do FIRST?

- A. Install a new access point in each break room to provide adequate coverage.
- B. Remount the access points to a place on the ceiling closer to the break rooms.
- C. Unplug appliances (e.g. microwaves) to see if they are causing interference.
- D. Change the encryption on the access points from WPA2 to WEP.

Answer: C

Explanation:

QUESTION NO: 322

A company has installed a wireless network for visitors to use. They wish to give the visitors easy access to that network. Based on the configurations below, which of the following should the administrator change?

Access Point 1 Access Point 2

802.11g 802.11b

Encryption: WPA2 Encryption: WEP

Channel: 1 Channel: 7

SSID: CompanyWiFi SSID: Visitor

- A. Change the SSID on Access Point 2 to OPEN.
- B. Disable SSID broadcasting on Access Point 1.

- C. Change the encryption on Access Point 2 to WPA2.
- D. Remove the WEP encryption from Access Point 2.

Answer: D

Explanation:

QUESTION NO: 323

A technician is attempting to set up a new laptop for a user. The user's old laptop connects to the corporate wireless network "CompanyWiFi" automatically. However, when the technician looks for the "CompanyWiFi" network on the new laptop, he does not find it in the list of available networks. Both laptops have 802.11g wireless network adapters and are sitting next to each other on the user's desk. Which of the following would MOST likely be the reason that the new laptop cannot see the "CompanyWiFi" network?

- A. Loss of signal strength
- B. Incorrect WEP key was input
- C. RFID interference from other electronic devices
- D. SSID broadcasting is disabled on the WAP

Answer: D

Explanation:

QUESTION NO: 324

A small office is looking to deploy wireless to cover one half of the work area only. The technician is restricted to suspending the WAP in the middle of the office due to network jack limitations. Which of the following antenna types would BEST meet these requirements?

- A. Dipole
- B. Parabolic
- C. Directional
- D. Omni-directional

Answer: C

Explanation:

QUESTION NO: 325

A computer configured by DHCP has a listed DNS server and gateway. Which of the following allows these settings to be configured?

- A. Reservations
- B. Leases
- C. Scopes
- D. Options

Answer: D

Explanation:

QUESTION NO: 326

Which of the following do DHCP servers provide to requesting devices on the network? (Select TWO).

- A. Encryption
- B. Leases
- C. SSID
- D. Channels
- E. Suffixes
- F. VLAN assignments

Answer: B,E

Explanation:

QUESTION NO: 327

Which of the following must a technician enable on a switch in order to be able to view all of the packets traversing a switch using a packet sniffer?

- A. STP
- B. Port Mirroring
- C. VLANs
- D. PoE

Answer: B

Explanation:

QUESTION NO: 328

Joe, a vendor, walks into a customer's site with a laptop. While waiting for his contact to arrive, he wants to check his email. He discovers the SSID for the site's wireless network and receives a valid guest password from the receptionist. He is, however, unable to connect. Which of the following is MOST likely the problem?

- A. The customer's wireless router uses WPA encryption.
- B. The wireless router at the customer's site is configured with MAC filtering.
- C. The customer's WAP uses WEP encryption.
- D. The customer's IT department blocks all visitors from connecting to their network.

Answer: B

Explanation:

QUESTION NO: 329

Joe, a technician, is attempting to connect two hubs to add a new segment to his local network. He uses one of his CAT5 patch cables to connect them; however, he is unable to reach the new network segment from his workstation. He can only connect to it from a workstation within that segment. Which of the following is MOST likely the problem?

- A. One of the hubs is defective.
- B. The new hub is powered down.
- C. The patch cable needs to be a CAT6 patch cable.
- D. The technician used a straight-through cable.

Answer: D

Explanation:

QUESTION NO: 330

A technician is troubleshooting a printing issue where some users in an office are unable to print. Which of the following should be the FIRST step in troubleshooting this issue?

- A. Reboot each of the workstations
- B. Ask users if anything changed in their environment recently
- C. Advise users to move to a different office
- D. Power cycle the printer

Answer: B

Explanation:

QUESTION NO: 331

A technician is troubleshooting a wireless network that was setup previously. The network is a hybrid of 802.11g and 802.11n WAPs. Users are not able to view or connect to the 802.11n WAPs. Which of the following is MOST likely the cause?

- A. The 802.11g WAPs are not setup for backwards compatibility.
- B. The 802.11n WAPs are using a 2.4 GHz frequency channel.
- C. The 802.11n WAPs are using a 5 GHz frequency channel.
- D. The 802.11g WAPs all have disabled SSID broadcast.

Answer: C

Explanation:

QUESTION NO: 332

A user is on a network with two upstream connections to the Internet and is experiencing intermittent issues while connecting to websites. Some websites are available but others are not. Which of the following is the MOST likely cause of the condition?

- A. Incorrect VLAN assignment
- B. Bad or missing routes
- C. Switching loop
- D. Wrong subnet mask

Answer: B

Explanation:

QUESTION NO: 333

Which of the following is a value that can be received from a DHCP server?

- A. Bootp server address
- B. SMTP server address
- C. WWW server address
- D. VPN server address

Answer: A

Explanation:

QUESTION NO: 334

Joe, a network technician, is asked to install a couple new WAP's inside a back warehouse that was added to a main warehouse facility that already has complete wireless coverage on both the 2.4GHz and 5GHz frequencies. Joe already has a complete wireless heat map of the main warehouse. Which of the following is the first step that Joe should do before choosing which WAP's to use?

- A. Conduct a wireless survey of the back warehouse.
- B. Ask the vendor that provided the WAP's for the main warehouse for recommendations.
- C. Ask the systems administrator which WAP's are preferred.
- D. Only order WAP's that support 5GHz channels.

Answer: A

Explanation:

QUESTION NO: 335

Joe, a network technician, is tasked with setting up a new wireless network in an office for office laptops and desktops only. The surrounding offices already have many wireless networks. Joe discovered that over 30 wireless networks were showing up as he completed a wireless survey of the office. Every single one of the networks that Joe was able to see while conducting the wireless survey were 802.11b/g networks. Which of the following should Joe consider before purchasing/installing the new wireless access points?

- A. Move the WAP so that it is close to the interior walls.
- B. Determine which wireless channels and bands to use to mitigate as much interference as possible.
- C. Turn the SSID broadcasts off to decrease interference.
- D. Determine if the business should relocate to a building with a lot less surrounding wireless networks.

Answer: B

Explanation:

QUESTION NO: 336

A network has a large number of users who connect for short periods of time and the network needs to maximize the number of devices that can be configured using DHCP. Which of the following should be configured to solve this issue?

- A. Increase the number of reservations
- B. Increase exclude list
- C. Decrease lease times
- D. Decrease the scope

Answer: C

Explanation:

QUESTION NO: 337

A technician is implementing a wireless network at a small business. The business already has a certificate authority and RADIUS server that they would like the technician to integrate with the wireless network. Additionally, the business would like to utilize their legacy 802.11b TKIP printers. Which of the following configurations should the technician use?

- A. 802.11a with WPA2-Enterprise
- B. 802.11n with WPA-PSK
- C. 802.11n with WPA2-PSK
- D. 802.11g with WPA-Enterprise

Answer: D

Explanation:

QUESTION NO: 338

An administrator has created several virtual machines on the same host server and requires them to each be on separate VLANs. Which of the following should the administrator configure to meet this goal?

- A. Set the VLAN preferences on the host's NIC
- B. Create each VLAN on the host's virtual switch
- C. Change the virtual machine NIC settings from private to bridged
- D. Create each VLAN on the host's gateway router

Answer: B

Explanation:

QUESTION NO: 339

A technician is troubleshooting a network camera. The technician restarted the modem and now the camera is no longer available from a mobile device. Which of the following has MOST likely occurred?

- A. The public IP address of the network has changed.
- B. The camera has received a new firmware update.
- C. The camera's secure shell has been disabled.
- D. The router has changed the IP of the mobile device.

Answer: A

Explanation:

QUESTION NO: 340

A new technician has moved the wireless access point from the middle of the office to an area near a corner office. Wireless users are MOST likely to experience issues with which of the following?

- A. Signal strength
- B. SSID mismatch
- C. Channel mismatch
- D. Encryption mismatch

Answer: A

Explanation:

QUESTION NO: 341

A technician has determined that calls placed over a wireless connection are breaking up and the speaker's voices are delayed. This is making conversation difficult. This is a symptom of which of the following network issues?

- A. Latency
- B. Bad GBIC

- C. Bad SFP
- D. SSID mismatch

Answer: A

Explanation:

QUESTION NO: 342

A technician wants to configure multiple switches to support all of the corporate VLANs. Which of the following will allow configuration of the switches and have the information propagate automatically to the other switches?

- A. FTP server
- B. VTP server
- C. Virtual PBX
- D. NTP server

Answer: B

Explanation:

QUESTION NO: 343

A user informs the network administrator of increasingly common wireless connection problems. The administrator determines the user has recently received a new cordless phone. The phone is MOST likely causing which of the following conditions?

- A. Signal strength latency
- B. Bouncing signal
- C. Interference
- D. Crosstalk

Answer: C

Explanation:

QUESTION NO: 344

A network administrator has just been notified about the loss of Internet connectivity. Another technician had just performed non-scheduled maintenance and mentioned that some cabling may have been moved. Which of the following MOST likely caused the loss of Internet connectivity?

- A. Broadcast storm
- B. TX/RX cables reversed
- C. Mismatched MTU
- D. Incorrect routing table

Answer: B

Explanation:

QUESTION NO: 345

A user reports that they keep getting disconnected on the wireless network. After further investigation, the technician confirms that this occurs only in that user's office. Which of the following would MOST likely cause them to lose their connection?

- A. Encryption type
- B. Disabled wireless adapter
- C. SSID mismatch
- D. Interference

Answer: D

Explanation:

QUESTION NO: 346

A new SOHO wireless network is set up using two access points with separate SSIDs on the same frequency. However, the users are experiencing intermittent connectivity on both SSIDs. Which of the following is the problem?

- A. Wrong DNS
- B. SSID mismatch
- C. Encryption type
- D. Incorrect channel

Answer: D

Explanation:

QUESTION NO: 347

A user at a small business states that they cannot connect to the Internet via the company's

wireless network every time their cordless phone rings. Which of the following is MOST likely occurring?

- A. Interference
- B. Incorrect encryption type
- C. Latency
- D. SSID mismatch

Answer: A

Explanation:

QUESTION NO: 348

A technician is troubleshooting a desktop computer that will not power on. After replacing the power supply, the technician tries to start the desktop, but it still fails to power on. Which of the following troubleshooting steps should the technician do NEXT?

- A. Question users to determine if anything has changed
- B. Re-establish theory of probable cause
- C. Escalate problem to upper management
- D. Document replacement of power supply

Answer: B

Explanation:

QUESTION NO: 349

A technician grabs a network cable and connects two switches together. However, the ports fail to come up as indicated by the link lights. Which of the following is MOST likely the issue?

- A. Wrong subnet mask on the interfaces
- B. Mismatched MTU size
- C. Straight through instead of cross over cable
- D. SSID mismatch between the switches

Answer: C

Explanation:

QUESTION NO: 350

A stateful point to point wireless connection going down for a few hours at a time is MOST likely due to which of the following?

- A. Interference
- B. Configuration
- C. Incorrect MTU size
- D. Incorrect IP

Answer: A

Explanation:

QUESTION NO: 351

An administrator would like to get more speed out of a wireless network. The administrator decides to configure the AP with a frequency width of 40MHz. Which of the following features is the administrator MOST likely using?

- A. MIMO
- B. AP isolation
- C. Channel bonding
- D. Burst mode

Answer: C

Explanation:

QUESTION NO: 352

A technician is installing a switch that will be used for VoIP and data traffic. The phones do not support the 802.3af standard. Which of the following should the technician configure on the switch?

- A. VLAN
- B. PoE
- C. VTP
- D. QoS

Answer: D

Explanation:

QUESTION NO: 353

A technician is installing a PoE switch for VoIP phones. Which of the following is the technician MOST likely going to configure on the switch?

- A. NAT
- B. QoS
- C. PAT
- D. DHCP

Answer: B

Explanation:

QUESTION NO: 354

Several mobile users from various areas are reporting intermittent connectivity issues. Which of the following is the MOST likely cause?

- A. Encryption strength
- B. SSID mismatch
- C. Interference
- D. Incompatible NIC

Answer: C

Explanation:

QUESTION NO: 355

When a patch cable is plugged into a switch, all port activity indicators turn on and users instantly lose network connectivity. Which of the following is the MOST likely diagnosis?

- A. Denial of service attack
- B. MTU black hole
- C. Switching loop
- D. Defective patch cable

Answer: C

Explanation:

QUESTION NO: 356

A technician installs a wireless router on an existing network by connecting it directly to the firewall. By default, the main network is a Class A network, while the wireless network is a Class C network. After the wireless router is installed, users connected to the wireless network report they are unable to connect to the Internet. Which of the following needs to be configured to BEST resolve this issue?

- A. Configure the main network to Class C
- B. Allow for duplicate IP addresses
- C. Allow the main network to handle DHCP
- D. Create a spanning tree to prevent switching loops

Answer: C

Explanation:

QUESTION NO: 357

A network administrator is setting up a WAP and wants to disable the ability of gaining access from the parking garage. Which of the following should the network administrator review?

- A. Signal strength
- B. SSID name
- C. WPA2 encryption
- D. WEP encryption

Answer: A

Explanation:

QUESTION NO: 358

A network administrator is replacing old switches to support a VoIP deployment. Based on this parameter, which of the following is MOST likely to be implemented on these new switches?

- A. PoE

- B. STP
- C. NAT
- D. VTP

Answer: A

Explanation:

QUESTION NO: 359

A technician needs to install network device in a SOHO network. The office requires 9 wired workstations to share and print data. Which of the following can the technician use?

- A. A 12 port unmanaged switch.
- B. A wired router with an 8 port switch and a WAN port.
- C. A wireless router with an 8 port switch, and a WAN port.
- D. A 8 port firewall with one console port.

Answer: A

Explanation:

QUESTION NO: 360

A technician receives a work order that a user can no longer access any external websites. The user is the only one affected, but can still access websites by IP address. Which of the following is the MOST likely cause?

- A. The workstation has been removed from the domain and needs to be re-added in directory services.
- B. The workstation is configured to use the IPv4 protocol instead of IPv6.
- C. The workstation is configured with an incorrect IP address of the DNS server.
- D. The workstation's DHCP IP address has expired and has assigned itself an APIPA address.

Answer: C

Explanation:

QUESTION NO: 361

Linking two or more switches together so that they can share VLAN information is known as which of the following?

- A. Port replicating
- B. Filtering
- C. Trunking
- D. Spoofing

Answer: C

Explanation:

QUESTION NO: 362

All users on a specific network segment report losing access to the wired network. During troubleshooting, the network administrator observes link lights on the workstations. When physically reviewing each switch, the network administrator changes the switch view settings to Activity and sees that all port lights remain solid green. Which of the following is MOST likely causing this issue?

- A. STP convergence
- B. Power failure
- C. Excessive bandwidth usage
- D. Broadcast storm

Answer: D

Explanation:

QUESTION NO: 363

After a power failure, several users are unable to connect to network devices at the remote office. Which of the following is the MOST likely cause of the issue?

- A. Bad cable
- B. Missing route
- C. Duplicate IP address
- D. Switching loop

Answer: B

Explanation:

Topic 3, Network Media & Topologies

QUESTION NO: 364

Which of the following can MOST likely cause intermittent connection problems with a CAT5 network cable?

- A. Cable has been looped too many times.
- B. Cable has a twist tie attached too close to the connector.
- C. Cable is too warm.
- D. Cable is run too close to a fluorescent light.

Answer: D

Explanation: Cat 5 is a twisted pair cable for carrying signals. This type of cable is used in structured cabling for computer networks such as Ethernet. The cable standard provides performance of up to 100 MHz and is suitable for 10BASE-T, 100BASE-TX (Fast Ethernet), and 1000BASE-T (Gigabit Ethernet).

QUESTION NO: 365

Which of the following is an example of a CSMA/CD medium?

- A. WEP
- B. SONET
- C. Token ring
- D. Ethernet

Answer: D

Explanation: CSMA/CD is a Media Access Control method in which a carrier sensing scheme is used and also a transmitting data station that detects another signal while transmitting a frame, stops transmitting that frame, transmits a jam signal, and then waits for a random time interval before trying to resend the frame

QUESTION NO: 366

Which of the following copper cable types should be chosen to run gigabit speeds through a dropped ceiling that returns airflow?

- A. Non-Plenum CAT5
- B. Non-Plenum CAT5e
- C. Plenum CAT5
- D. Plenum CAT5e

Answer: D

Explanation: Cat 5e is a twisted pair cable for carrying signals. This type of cable is used in structured cabling for computer networks such as Ethernet. The cable standard provides performance of up to 100 MHz and is suitable for 10BASE-T, 100BASE-TX (Fast Ethernet), and 1000BASE-T (Gigabit Ethernet).

QUESTION NO: 367

A technician tests a cable going to the patch panel and notices the following output from the cable tester:

- 1-----1
- 2-----2
- 3-----3
- 4-----4
- 5-----5
- 6-----6
- 7-----7
- 8-----8

On a T568A standard CAT5e cable, which of the following wire strands is the cause of this connectivity issue?

- A. White Orange
- B. Solid Brown
- C. Solid Orange
- D. White Green

Answer: D

Explanation:

T568A Wiring

Pin

Pair

Wire

Color

1

3

1



white/green

2

3

2



green

3

2

1



white/orange

4

1

2



blue

5

1

1



white/blue

6

2

2



orange

7

4

1



white/brown

8

4

2



brown

QUESTION NO: 368

Which of the following components of wiring distribution is referred to as the core communications closet for an organization?

- A. MDF
- B. Smart jack
- C. IDF
- D. Demarc extension

Answer: A

Explanation: MDF stands for Main Distribution Frame and is the main computer room for servers, hubs, routers, DSL's, etc. to reside.

QUESTION NO: 369

Users notice a problem with their network connectivity when additional lights are turned on. Which of the following would be the cause for this problem?

- A. DDOS
- B. Cross talk
- C. Open short
- D. EMI

Answer: D

Explanation:

External Machine Interface (EMI), an extension to Universal Computer Protocol (UCP), is a protocol primarily used to connect to short message service centres (SMSCs) for mobile telephones.

QUESTION NO: 370

A user does not have network connectivity. While testing the cable the technician receives the below reading on the cable tester:

1-----1

2-----2

3-----3

4-----4

5-----5

6-----6

7-----7

8-----8

Which of the following should the technician do NEXT?

- A. Cable is a crossover, continue troubleshooting
- B. Pin 3 is not used for data, continue troubleshooting
- C. Pin 3 is not used for data, replace the NIC
- D. Redo the cable's connectors

Answer: D

Explanation: Incomplete/Incorrect Question.

QUESTION NO: 371

Management wants to be sure that the existing wiring infrastructure conforms to CAT5e standards.

Which of the following is the correct tool?

- A. Cable certifier

- B. Cable tester
- C. OTDR
- D. Protocol analyzer

Answer: A

Explanation:

A cable certifier is used to verify that a cable meets its specifications such as the bandwidth and frequency. For example, it can verify a CAT 5e cable meets specifications and supports speeds of 1000Mbps.

QUESTION NO: 372

In contrast to earlier Wi-Fi speeds, which of the following BEST describes the antenna and channelization properties used in 802.11n?

- A. MIMO, DSSS
- B. MIMO, OFDM
- C. CSMA, DSSS
- D. CSMA, CDMA

Answer: B

Explanation: 802.11n builds upon previous 802.11 standards by adding multiple-input multiple-output (MIMO). The additional transmitter and receiver antennas allow for increased data throughput through spatial multiplexing and increased range by exploiting the spatial diversity through coding schemes like Alamouti coding. The speed is 150 Mbit/s (even 250 Mbit/s in PHY level)

QUESTION NO: 373

A CAT5e network cable run needs to be installed over fluorescent lighting arrays in an office building. Which of the following cable types would be BEST suited for such an installation?

- A. UTP
- B. Plenum
- C. Coaxial
- D. STP

Answer: D

Explanation: Shielded twisted pair is a special kind of copper telephone wiring used in some business installations. An outer covering or shield is added to the ordinary twisted pair telephone wires; the shield functions as a ground.

Twisted pair is the ordinary copper wire that connects home and many business computers to the telephone company. To reduce crosstalk or electromagnetic induction between pairs of wires, two insulated copper wires are twisted around each other. Each signal on twisted pair requires both wires

QUESTION NO: 374

Which of the following wireless standards provide speeds up to 150Mbps?

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

Answer: D

Explanation: 802.11n builds upon previous 802.11 standards by adding multiple-input multiple-output (MIMO). The additional transmitter and receiver antennas allow for increased data throughput through spatial multiplexing and increased range by exploiting the spatial diversity through coding schemes like Alamouti coding. The speed is 150 Mbit/s (even 250 Mbit/s in PHY level)

QUESTION NO: 375

Which of the following defines a rack located in an office building between the main rack and other office equipment?

- A. DSU
- B. MDF
- C. CSU
- D. IDF

Answer: D

Explanation: An intermediate distribution frame (IDF) is a distribution frame in a central office or

customer premises, which cross-connects the user cable media to individual user line circuits and may serve as a distribution point for multipair cables from the main distribution frame (MDF) or combined distribution frame (CDF) to individual cables connected to equipment in areas remote from these frames.

IDFs are used for telephone exchange central office, customer-premise equipment, wide area network (WAN), and local area network (LAN) environments, among others.

QUESTION NO: 376

The ISP needs to terminate the WAN connection. The connection should be located in the network server room where the company LAN equipment resides. Which of the following identifies the location?

- A. Smart jack
- B. MDF
- C. VPN
- D. 66 block

Answer: B

Explanation:

Short for main distribution frame, a cable rack that interconnects and manages the telecommunications wiring between itself and any number of IDFs. Unlike an IDF, which connects internal lines to the MDF, the MDF connects private or public lines coming into a building with the internal network.

QUESTION NO: 377

A Chief Executive Officer (CEO) decided that only a limited number of authorized company workstations will be able to connect to the Internet. Which of the following would BEST accomplish this goal?

- A. Use content filtering
- B. Install and configure IDS
- C. Enable MAC address filtering
- D. Enable RAS on the network firewall

Answer: C

Explanation:

Most Wi-Fi access points and routers ship with a feature called **hardware** or **MAC address filtering**. This feature is normally turned "off" by the manufacturer, because it requires a bit of effort to set up properly. However, to improve the security of your Wi-Fi LAN (WLAN), strongly consider enabling and using MAC address filtering.

QUESTION NO: 378

Multiple computers are connected to a hub near a wall plate. In order to get to the computers, students step on and around the cable that connects the teacher's station, a few feet away, to the same hub. The teacher is experiencing no network connectivity. Which of the following is MOST likely the problem?

- A. Cross-talk
- B. Split cables
- C. Distance
- D. EMI

Answer: B

Explanation: A split cable is invisible to wire maps and continuity testers, making it very difficult to troubleshoot.

QUESTION NO: 379

Which of the following network topologies describes a network where each node is connected to every other node?

- A. Bus
- B. Star
- C. Mesh
- D. Ring

Answer: C

Explanation: In a true mesh topology every node has a connection to every other node in the network.

QUESTION NO: 380

Which of the following supports faster wireless broadband speeds?

- A. Satellite
- B. Wi-MAX
- C. ISDN
- D. OC-3

Answer: B

Explanation: **Wi-MAX (Worldwide Interoperability for Microwave Access)** is a wireless communications standard designed to provide 30 to 40 megabit-per-second data rates with the 2011 update providing up to 1 G bit/s for fixed stations

QUESTION NO: 381

Ann, a home user, wishes to confine a wireless network to devices **ONLY** inside of her house. Which of the following will accomplish this?

- A. Decreasing radio strength
- B. MAC filtering
- C. WEP encryption
- D. SSID broadcast disable

Answer: A

Explanation: Decreasing Radio Strength will reduce signal strength outside the house and will accomplish what she is intending to do.

QUESTION NO: 382

Which of the following WAN technologies has the **HIGHEST** latency?

- A. ADSL
- B. LTE

- C. Satellite
- D. WiMAX

Answer: C

Explanation:

Satellite WAN latency is the delay caused by the physical distance a signal must travel from earth, to the satellite, and back to earth to complete a round-trip transmission. Because of the physics involved in the round-trip-time (RTT), end-to-end latency can take 600 milliseconds or more due to geosynchronous satellites orbiting miles above the earth.

QUESTION NO: 383

Which of the following connectors are MOST commonly used on a POTS line?

- A. RJ-45
- B. MTRJ
- C. DB-9
- D. RJ-11

Answer: D

Explanation:

The six-position plug and jack commonly used for telephone line connections may be used for RJ11, RJ14 or even RJ25, all of which are actually names of interface standards that use this physical connector. The RJ11 standard dictates a 2-wire connection, while RJ14 uses a 4-wire configuration, and RJ25 uses all six wires. The RJ abbreviations, though, only pertain to the wiring of the jack (hence the name "registered jack"); it is commonplace but not strictly correct to refer to an unwired plug connector by any of these names. Typically you'll find the RJ-11 and RJ-14 on your Plain Old Telephone Service (POTS)

QUESTION NO: 384

Which of the following cable types is required to run through an air duct?

- A. UTP
- B. Fiber
- C. PVC
- D. Plenum

Answer: D

Explanation: Plenum rated cable has a special insulation that has low smoke and low flame characteristics. Plenum cable is mandated to be installed in any "air handling" space. For example, most large office buildings use the ceiling to return air to the AC unit. This qualifies this ceiling as a plenum ceiling, and all the cables that go through that ceiling must be plenum rated.

QUESTION NO: 385

Which of the following technologies can cause interference for 802.11g?

- A. RADAR
- B. 802.11a
- C. IrDA
- D. Bluetooth

Answer: D

Explanation:

This wireless communication standard has a maximum transmission speed of 54 Mbits per second and a typical indoor range of 30 meters. It uses the 2.4 GHz band. This band may have to deal with interference from cordless telephones, Bluetooth devices, and various appliances.

QUESTION NO: 386

Which of the following reduces the deployment cost of a wireless LAN?

- A. WPA
- B. 802.1x
- C. MIMO
- D. PoE

Answer: D

Explanation: Power over Ethernet or PoE describes any of several standardized or ad-hoc systems which pass electrical power along with data on Ethernet cabling. This allows a single cable to provide both data connection and electrical power to devices such as wireless access points or IP cameras.

QUESTION NO: 387

Which of the following is the MAXIMUM rated speed for CAT5 cabling?

- A. 10Mbps
- B. 100Mbps
- C. 1000Mbps
- D. 10Gbps

Answer: B

Explanation: Category 5 cable (Cat 5) is a twisted pair cable for carrying signals. This type of cable is used in structured cabling for computer networks such as Ethernet. The cable standard provides performance of up to 100 MHz and is suitable for 10BASE-T, 100BASE-TX (Fast Ethernet), and 1000BASE-T (Gigabit Ethernet)

QUESTION NO: 388

Which of the following connector types would be found with a VoIP system utilizing CAT6 cabling?

- A. SC
- B. RJ-45
- C. RJ-11
- D. BNC

Answer: B

Explanation:

The heavier wire in some Cat 6 cables makes them too thick to attach to standard 8P8C (RJ-45) connectors without a special modular piece

QUESTION NO: 389

A technician notices a newly installed CAT5 cable is longer than the standard maximum length. Which of the following problems would this MOST likely cause?

- A. Split cable
- B. EMI
- C. DB loss
- D. Crosstalk

Answer: C

Explanation: The maximum length for a cable segment is 100 m per TIA/EIA 568-5-A. If longer runs are required, the use of active hardware such as a repeater or switch is necessary. The specifications for 10BASE-T networking specify a 100metre length between active devices. This allows for 90metres of solid-core permanent wiring, two connectors and two stranded patch cables of 5metres, one at each end.

QUESTION NO: 390

Which of the following could be installed to allow a home user with one desktop computer to economically have Internet access in every room in the house?

- A. Fiber optic
- B. CAT6
- C. Broadband over powerline
- D. CAT5

Answer: C

Explanation: Internet access service through existing power lines is often marketed as broadband over power lines (BPL), also known as power-line Internet or powerband. A computer (or any other device) would need only to plug a BPL modem into any outlet in an equipped building to have high-speed Internet access

QUESTION NO: 391

Which of the following 802.11 standards transmits the signals the GREATEST distance?

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

Answer: D

Explanation:

802.11n uses multiple antennas to increase data rates.

QUESTION NO: 392

Which of the following fiber types is MOST often used indoors?

- A. Plenum
- B. Modal conditioning
- C. Multimode
- D. Singlemode

Answer: C

Explanation: Multi-mode optical fiber is a type of optical fiber mostly used for communication over short distances, such as within a building or on a campus. Typical multimode links have data rates of 10 Mbit/s to 10 Gbit/s over link lengths of up to 600 meters (2000 feet) and 10 Gbit/s for 300m (1000 feet) — more than sufficient for the majority of premises applications.

QUESTION NO: 393

Users are reporting wired connectivity drops in a new office with brand new CAT6 infrastructure. Which of the following tools should a technician use to BEST troubleshoot this issue?

- A. OTDR
- B. Protocol analyzer
- C. Toner probe
- D. Cable certifier

Answer: D

Explanation:

A cable certifier is an electronic device used to verify the source of electric current, voltage and a switching matrix used to connect the current source and the volt meter to all of the contact points in a cable.

QUESTION NO: 394

Which of the following wireless technologies only uses the 5GHz spectrum but reaches a theoretical throughput of only 54Mbps?

- A. A
- B. B
- C. G
- D. N

Answer: A

Explanation:

802.11a standard uses the same core protocol as the original standard, operates in 5 GHz band, and uses a 52-subcarrier orthogonal frequency-division multiplexing (OFDM) with a maximum raw data rate of 54 Mbit/s, which yields realistic net achievable throughput in the mid-20 Mbit/s. The data rate is reduced to 48, 36, 24, 18, 12, 9 then 6 Mbit/s if required.

QUESTION NO: 395

Which of the following WAN technology types has the GREATEST latency?

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

Answer: C

Explanation: Because satellites provide a microwave radio relay technology complementary to that of communication cables. They are also used for mobile applications such as communications to ships, vehicles, planes and hand-held terminals, and for TV and radiobroadcasting.

QUESTION NO: 396

Multiple networked devices running on the same physical hardware that provide central access to applications and files, where each device runs as a piece of software are known as:

- A. Virtual desktops.
- B. Switches.
- C. PBXs.
- D. Virtual servers.

Answer: D

Explanation: A Virtual server, usually a Web server, that shares computer resources with other virtual servers. In this context, the virtual part simply means that it is not a dedicated server -- that is, the entire computer is not dedicated to running the server software

QUESTION NO: 397

Which of the following is the Telco end of a T1 demarc?

- A. Smart jack
- B. Network tap
- C. Proxy server
- D. IDF

Answer: A

Explanation: Smartjacks provides diagnostic capabilities. A very common capability provided by a smartjack is loopback, such that the signal from the telephone company is transmitted back to the telephone company. This allows the telephone company to test the line from the central office, without the need to have test equipment at the customer site. The telephone company usually has the ability to remotely activate loopback, without even needing personnel at the customer site. When looped back, the customer equipment is disconnected from the line.

QUESTION NO: 398

The network administrator installed a new dipole antenna that extends 100 feet (30.48 meters) from the existing AP. All components are correct, functional, and installed properly. However, during validation, there is a very weak signal coming from the antenna.

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

- A. The installation exceeds the link limitations

- B. The antenna is mounted for vertical polarization
- C. The dBi output of the antenna is too low
- D. The radio is too powerful for the installation

Answer: A

Explanation: Unlike isotropic antennas, dipole antennas are real antennas. Dipole antennas have a different radiation pattern compared to isotropic antennas. The dipole radiation pattern is 360 degrees in the horizontal plane and 75 degrees in the vertical plane (assuming the dipole antenna is standing vertically) and resembles a donut in shape. Because the beam is "slightly" concentrated, dipole antennas have a gain over isotropic antennas of 2.14 dB in the horizontal plane. Dipole antennas are said to have a gain of 2.14 dBi (in comparison to an isotropic antenna).

QUESTION NO: 399

Which of the following WAN technologies uses an analog phone line to transmit data?

- A. LTE
- B. DSL
- C. Satellite
- D. Cable

Answer: B

Explanation: DSL is a high-speed Internet service like cable Internet. DSL provides high-speed networking over ordinary phone lines using broadband modem technology. DSL technology allows Internet and telephone service to work over the same phone line without requiring customers to disconnect either their voice or Internet connections.

QUESTION NO: 400

A newly hired technician is sent to an alternate site to complete the build out of large scale LAN. Which of the following tools should the technician have on hand to install the bulk CAT6 cable? (Select TWO).

- A. Loopback plug
- B. Multimeter
- C. OTDR
- D. Crimper
- E. Cable tester

F. TDR

Answer: D,E

Explanation: A cable tester is an electronic device used to verify the source of electric current, voltage and a switching matrix used to connect the current source and the volt meter to all of the contact points in a cable.

QUESTION NO: 401

802.11n can operate at which of the following frequencies? (Select TWO).

- A. 2.4Mhz
- B. 2.5Mhz
- C. 5Mhz
- D. 2.4Ghz
- E. 2.5Ghz
- F. 5Ghz

Answer: D,F

Explanation:

802.11n is an amendment which improves upon the previous 802.11 standards by adding multiple-input multiple-output antennas (MIMO). 802.11n operates on both the 2.4 GHz and the lesser used 5 GHz bands

QUESTION NO: 402

Which of the following connector types are used in terminating singlemode fiber cables? (Select TWO).

- A. LC
- B. F-connector
- C. DB-9
- D. BNC
- E. RJ-11
- F. SC

Answer: A,F

Explanation:

A variety of optical fiber connectors are available, but SC and LC connectors are the most common types of connectors on the market.[citation needed] Typical connectors are rated for 500–1,000 mating cycles. The main differences among types of connectors are dimensions and methods of mechanical coupling. Generally, organizations will standardize on one kind of connector, depending on what equipment they commonly use. Different connectors are required for multimode, and for single-mode fibers

QUESTION NO: 403

Which of the following cable types supports the FURTHEST distance when connecting various MDFs?

- A. Multimode
- B. UTP
- C. Singlemode
- D. CAT6

Answer: C

Explanation:

Single-mode optical fiber (SMF) is an optical fiber designed to carry only a single ray of light (mode). These modes define the way the wave travels through space, i.e. how the wave is distributed in space.

QUESTION NO: 404

Which of the following would be used to connect a singlemode fiber cable to a CAT6 connection?

- A. Media converter
- B. T1-crossover
- C. Multimode cable
- D. Coaxial

Answer: A

Explanation:

Media converters support many different data communication protocols including Ethernet, Fast Ethernet, Gigabit Ethernet, T1/E1/J1, DS3/E3, as well as multiple cabling types such as coax, twisted pair, multi-mode and single-mode fiber optics.

QUESTION NO: 405

A small office client is requesting a network redesign. Both wired and wireless devices must connect to the network. All of the wireless devices can communicate using the latest standards. The building has a long courtyard in the middle with reinforced walls, which extends up through all the floors. The distance from the switch to the furthest drop is 88 meters. Which of the following is the correct network redesign choice?

- A. Fiber optic cabling is necessary due to distance limitations.
- B. The wireless network should be 802.11b due to equipment limitations.
- C. One WAP will be sufficient to provide wireless coverage to the floor.
- D. The wired network should be run with at least CAT6 cabling.

Answer: D

Explanation: The Category 6 cable, also known as Cat-6, is backward compatible with the Category 5/5 e and Category 3 cable standards. It can create a high speed computer network and operate at an optimal performance if other components in the network are compatible with gigabit speeds.

Advantage. Speed and Performance

The cable can handle speed performance of up to 250 MHZ. This fast performance makes it possible to use with a fast ethernet network including Gigabit Ethernet and 10-Gigabit Ethernet. The whole generation of the Cat 6 cable was introduced to complement the Gigabit Ethernet which includes interface cards, patch panels, routers, switches, and other components which is developed to achieve a full gigabit network. Many IT professionals realized that the Cat 6 cable provide very fast network performance and can deliver gigabit speeds.

Advantage. Similar Structure with Cat 5 Cable

Cat 6 cable has a similar structure to the Cat 5 and Cat 5e. The Cat 6, Cat 5 and Cat 5e cables have 8 wires that are twisted together to form four pairs. The difference is that one pair of the wires in the Cat 6 cable is kept from contacting with others so that it can produce double the bandwidth of the Cat 5 and Cat 5e.

Advantage. Backward Compatible

The plug and port of the Cat 6 cable is the same as the Cat 5 and Cat 5e. Therefore, it can be plugged into any port or connection that supports both of those cables. If you use the Cat 5 port, it will not yield the full speed that it is capable of handling. Instead, it will operate at the speed of the computer or cable. However, the speed will be acceptable.

Advantage. Upgradable

If upgrading to a more optimal network, the Cat 6 cable should be included in part of the upgrade. The Cat 6 cable will not operate at the full speed if other units in the network does not support gigabit speeds. Small businesses that are starting should consider installing the Cat 6 cable since

it is becoming the industry standard.

QUESTION NO: 406

A network administrator tests a multimode fiber cable from end-to-end on a new link that is down and notices that the dB loss is -.09. Which of the following is the MOST likely cause?

- A. TXRX reversed
- B. dB loss too high
- C. dB loss too low
- D. Bad connectors

Answer: A

Explanation:

Some Ethernet switches support medium dependent interface crossover (MDIX), which allows a switch port to properly configure its leads as transmit (Tx) or receive (Rx) leads. You can interconnect such switches with a straight-through cable (as opposed to a crossover cable). However, if a network device does not support MDIX, it needs an appropriate cable (that is, a crossover cable) to allow its Tx leads to connect to the Rx leads on a connected device, and vice versa.

Therefore, care must be taken when selecting cable types interconnecting network components.

QUESTION NO: 407

Which of the following wireless standards would BEST allow a company to utilize new and old devices on the 5GHz spectrum while allowing for the highest possible speeds?

- A. A
- B. B
- C. G
- D. N

Answer: D

Explanation: 802.11n is an amendment which improves upon the previous 802.11 standards by adding multiple-input multiple-output antennas (MIMO). 802.11n operates on both the 2.4 GHz and the lesser used 5 GHz bands

QUESTION NO: 408

Which of the following is the MAXIMUM potential speed of CAT5e UTP cable?

- A. 10BaseT
- B. 100BaseT
- C. 100BaseFX
- D. 1000BaseT

Answer: D

Explanation:

Category 5 e cable (Cat 5) is a twisted pair cable for carrying signals. This type of cable is used in structured cabling for computer networks such as Ethernet. The cable standard provides performance of up to 100 MHz and is suitable for 10BASE-T, 100BASE-TX (Fast Ethernet), and 1000BASE-T (Gigabit Ethernet).

QUESTION NO: 409

A network administrator is deploying a new wireless network with over 50 thin WAPs and needs to ensure all WAPs use consistent firmware and settings.

Which of the following methods provides this functionality?

- A. Use WAP auto-configuration
- B. Use a wireless controller
- C. Use PXE to load and track WAPs
- D. Use DHCP scope options

Answer: B

Explanation:

A wireless controller is used in combination with the Lightweight Access Point Protocol (LWAPP) to manage light-weight access points in large quantities by the network administrator or network operations center. The wireless LAN controller is part of the Data Plane within the Cisco Wireless Model. The WLAN controller automatically handles the configuration of anywhere from 6 to 6000 wireless access-points, depending on the model.

QUESTION NO: 410

While preparing to replace an old CAT3 cable with a CAT6 cable to implement VoIP, a facilities employee mistakenly disconnects the entire patch panel, including valid wiring to live workstations. Which of the following should an administrator use in order to connect those ports FIRST?

- A. Toner
- B. Multimeter
- C. Reflectometer
- D. Cable tester

Answer: A

Explanation: Toner® connects to any voice, data, or video cable to detect open/short circuits, continuity, AC/DC voltage* and dial tone* all while protecting up to 52 volt.

QUESTION NO: 411

Which of the following technologies is used on cellular networks?

- A. Ethernet
- B. CDMA
- C. CSMA/CA
- D. POTS

Answer: B

Explanation: CDMA is an example of multiple access, which is where several transmitters can send information simultaneously over a single communication channel. This allows several users to share a band of frequencies (see bandwidth). To permit this to be achieved without undue interference between the users CDMA employs spread-spectrum technology and a special coding scheme

QUESTION NO: 412

Which of the following technologies allows multiple staff members to connect back to a centralized office?

- A. Peer to Peer
- B. VPN
- C. PKI
- D. VLAN

Answer: B

Explanation: VPN enables a computer to send and receive data across shared or public networks as if it were directly connected to the private network, while benefiting from the functionality, security and management policies of the private network. This is done by establishing a virtual point-to-point connection through the use of dedicated connections, encryption, or a combination of the two.

QUESTION NO: 413

Which of the following technologies is used to connect public networks using POTS lines?

- A. OC3
- B. OC12
- C. PSTN
- D. Cable

Answer: C

Explanation: The PSTN consists of telephone lines, fiber optic cables, microwave transmission links, cellular networks, communications satellites, and undersea telephone cables, all interconnected by switching centers, thus allowing any telephone in the world to communicate with any other

QUESTION NO: 414

An administrator needs to install a WAP in a location where there is no electrical wiring. Which of the following should the administrator use to complete a successful installation?

- A. Coaxial
- B. Wireless bridge
- C. PoE
- D. Multimode fiber

Answer: C

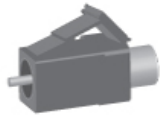
Explanation: PoE provides both data and power connections in one cable, so equipment doesn't require a separate cable for each need.

QUESTION NO: 415 DRAG DROP

Drag and drop the fiber cable connection types to the appropriate image.

FC LC (single) LC (duplex) SC ST

Answer:



ST

SC

LC (single)

LC (duplex)

FC

FC

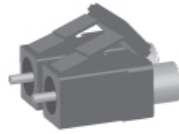
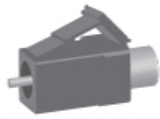
LC (single)

LC (duplex)

SC

ST

Explanation:



ST

SC

LC (single)

LC (duplex)

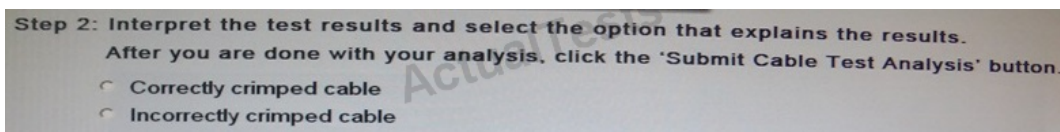
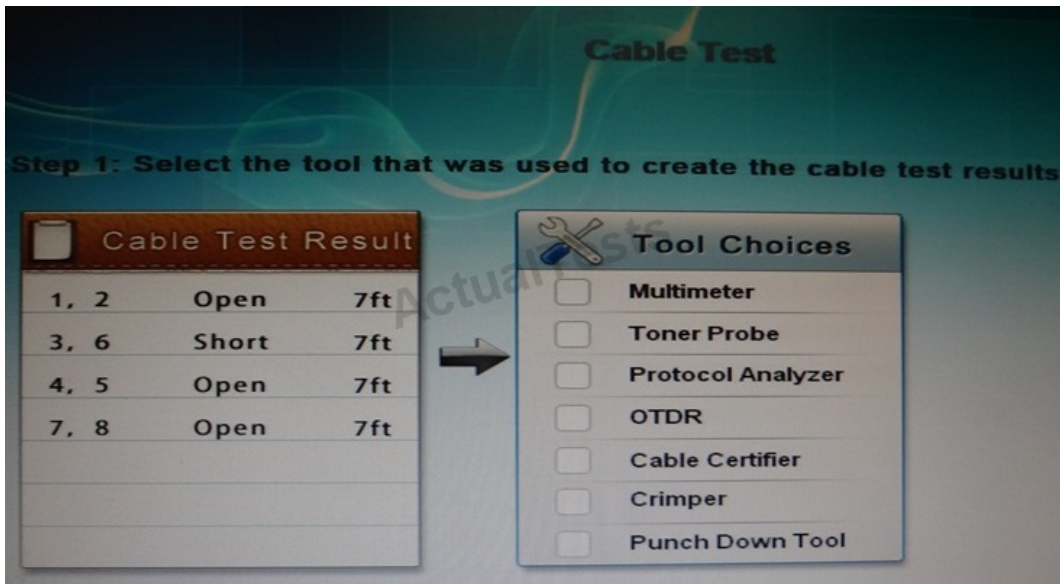
FC

QUESTION NO: 416 CORRECT TEXT

You have been tasked with testing a CAT5 cable. A summary of the test results can be found on the screen.

Step 1: Select the tool that was used to create the cable test results.

Step 2: Interpret the best results and select the options that explains the results.



Answer: Cable certifier – incorrectly crimped cable.

QUESTION NO: 417

Which of the following is the only standard that can operate at either frequency?

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

Answer: D

Explanation: Only 802.11n can operate at 2.4 Ghz and 5Ghz

QUESTION NO: 418

Which of the following wireless standards provide speed of 11Mbps?

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

Answer: B

Explanation: 802.11a - 54Mbps - OFDM

802.11b - 11Mbps - DSSS

802.11g - 54Mbps - OFDM/DSSS

802.11n - 150/300Mbps (MIMO) – OFDM

QUESTION NO: 419 DRAG DROP

Drag and drop the following maximum speeds to their corresponding wireless standards. Tokens can be used more than once.

Wireless Standard	Maximum Speed
802.11a	<input type="text"/>
802.11b	<input type="text"/>
802.11g	<input type="text"/>
802.11n	<input type="text"/>

10Mbps
11Mbps
54Mbps
56Mbps
>100Mbps

Answer:

Wireless Standard	Maximum Speed	
802.11a	54Mbps	10Mbps
802.11b	11Mbps	11Mbps
802.11g	54Mbps	54Mbps
802.11n	>100Mbps	56Mbps
		>100Mbps

Explanation:

Wireless Standard	Maximum Speed	
802.11a	54Mbps	10Mbps
802.11b	11Mbps	11Mbps
802.11g	54Mbps	54Mbps
802.11n	>100Mbps	56Mbps
		>100Mbps

QUESTION NO: 420

Which of the following WAN technologies has synchronous up/down speeds?

- A. T1
- B. ADSL
- C. Satellite
- D. Cable broadband

Answer: A

Explanation:

QUESTION NO: 421

Which of the following can operate on BOTH the 2.4GHz and 5.8GHz frequencies?

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

Answer: D

Explanation:

QUESTION NO: 422

Which of the following standards can operate at 40MHz channel spacing?

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

Answer: D

Explanation:

QUESTION NO: 423

Which of the following cable types is unshielded?

- A. STP
- B. Twinax
- C. UTP
- D. Coax

Answer: C

Explanation:

QUESTION NO: 424

Which of the following wireless standards can transmit data up to 540Mbps?

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

Answer: D

Explanation:

QUESTION NO: 425

A consultant has been hired to wire a simple small office of ten computers to a layer 2 Ethernet 100BaseT switch. Which of the following cabling will be needed for the installation?

- A. Multimode fiber
- B. RG-59 coaxial
- C. CAT6a
- D. CAT3

Answer: C

Explanation:

QUESTION NO: 426

The network technician is troubleshooting a connectivity issue on a CAT5 cable with a wire map and notices that only pins 1, 3, and 6 are mapping correctly. Which of the following pins are open and keeping traffic from flowing correctly?

- A. 2
- B. 4
- C. 5
- D. 8

Answer: A

Explanation:

QUESTION NO: 427

Which of the following wireless standards can operate on the same frequency but are not compatible?

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

Answer: B

Explanation:

QUESTION NO: 428

Which of the following is a fiber connector that is slightly smaller than a standard copper network cable connector?

- A. BNC
- B. GBIC
- C. MT-RJ
- D. SC

Answer: C

Explanation:

QUESTION NO: 429

Which wireless standard works at a MAXIMUM data rate of up to 11Mbps?

- A. 802.11a
- B. 802.11b
- C. 802.11g
- D. 802.1q

Answer: B

Explanation:

QUESTION NO: 430

Which of the following is the radio frequency and data rate for 802.11g as specified by the IEEE standards?

- A. 2.0 GHz at 33 Mbps
- B. 2.4 GHz at 54 Mbps
- C. 2.4 GHz at 128 Mbps
- D. 5.0 GHz at 54 Mbps

Answer: B

Explanation:

QUESTION NO: 431

The unit responsible for the successful shaping and transmission of a digital signal is called:

- A. demarc.
- B. T1 hub.
- C. smart jack.
- D. CSU/DSU.

Answer: D

Explanation:

QUESTION NO: 432

In the event of a fire in an office building, which of the following cable types should be installed to prevent toxic gas from burning PVC cable coatings?

- A. CAT6a
- B. Plenum
- C. Crossover
- D. STP

Answer: B

Explanation:

QUESTION NO: 433

Which of the following 802.3 classifications has a MAXIMUM segment distance of 984 feet (300 meters)?

- A. 1000Base
- B. 100BaseFX
- C. 1000BaseSX
- D. 1000BaseT

Answer: C

Explanation:

QUESTION NO: 434

Which of the following is a fiber connector type?

- A. F-connector
- B. RJ-11
- C. RS-232
- D. MTRJ

Answer: D

Explanation:

QUESTION NO: 435

Which of the following is MOST likely used with RG-6 media?

- A. MTRJ
- B. RJ-11
- C. RJ-45
- D. F-connector

Answer: D

Explanation:

QUESTION NO: 436

A technician can increase the bandwidth of an 802.11n cell by:

- A. doubling the channel width.
- B. enabling diversity.
- C. disabling MIMO.
- D. adding a second access point.

Answer: A

Explanation:

QUESTION NO: 437

Which of the following is a requirement for bridging with 802.11a?

- A. WPA encryption
- B. Governmental licenses
- C. High gain yagi antennas
- D. Clear line of sight

Answer: D

Explanation:

QUESTION NO: 438

Which of the following technologies can change channel widths?

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

Answer: C

Explanation:

QUESTION NO: 439

Which of the following is a common LAN protocol used for a SOHO?

- A. ATM
- B. DSL
- C. Ethernet
- D. HDLC

Answer: C

Explanation:

QUESTION NO: 440

A technician needs to setup an Internet connection for a small office. There are five users that need the ability to use email and do online research. The office manager wants the connection to be always on and be as inexpensive as possible. Which of the following would BEST fit the needs of this office?

- A. Broadband
- B. T1
- C. Frame Relay
- D. Satellite

Answer: A

Explanation:

QUESTION NO: 441

The network technician needs to install fiber cabling to connect two buildings less than 984 feet (300 meters) apart. Which of the following fiber types should be installed?

- A. Singlemode
- B. Multimode
- C. Crossover
- D. F-Connector

Answer: B

Explanation:

QUESTION NO: 442

Which of the following types of connectors is used with a CAT6 Ethernet cable?

- A. RJ-45
- B. BNC
- C. RJ-11
- D. DB-9

Answer: A

Explanation:

QUESTION NO: 443

Which of the following wireless standards is the only one capable of operating in any of the 802.11 wireless spectrums?

- A. A
- B. B
- C. G
- D. N

Answer: D

Explanation:

QUESTION NO: 444

Which of the following WAN technologies has the highest latency?

- A. POTS
- B. Cable
- C. Satellite
- D. DSL

Answer: C

Explanation:

QUESTION NO: 445

The network administrator just upgraded all of the WAPs to new ones with 2.4 GHz b/g/n support. The new WAPs reuse the same location and channel as the previous one and with no new external interference detected. However, performance issues are now occurring that did not exist before. Which of the following would correct the issue?

- A. Configure Wi-Fi Multimedia support
- B. Use only 20 MHz channel bandwidth
- C. Enable band steering to use 802.11n
- D. Configure Quality of Service

Answer: B

Explanation:

QUESTION NO: 446

A user has three different subnets in an office. Which of the following can be configured to allow two of the subnets to communicate directly with each other at the switch level?

- A. 802.1af
- B. 802.1q
- C. 802.1x
- D. 802.2

Answer: B

Explanation:

QUESTION NO: 447

A technician has two wireless 802.11g APs. One is set to channel 1 and the other channel 6. The APs appear to interfere with each other. Which of the following is MOST likely the reason?

- A. Channels below 9 overlap each other
- B. Channel width is set to 40MHz
- C. Channels are in the 5GHz range by mistake
- D. Channel 1 should have been set to 11 to avoid an overlap

Answer: B

Explanation:

QUESTION NO: 448

Which of the following are standard fiber cable connector types? (Select TWO).

- A. RJ-11
- B. F-connector
- C. MTRJ
- D. DB-9
- E. ST

Answer: C,E

Explanation:

QUESTION NO: 449

A user would like to connect two laptops together and transfer files via the Ethernet ports. Which of the following should MOST likely be provided to the user to accomplish this?

- A. Crossover
- B. Rollover
- C. Loopback
- D. Straight cable

Answer: A

Explanation:

QUESTION NO: 450

The phone company has provided a channelized T1 line. Which of the following should this line be connected to?

- A. Switch
- B. CSU/DSU
- C. IDF
- D. MDF

Answer: B

Explanation:

QUESTION NO: 451

Which of the following spreads out each of the individual wires of a UTP cable onto their own metal connector?

- A. BNC connection
- B. 110 block
- C. Plenum
- D. LC connector

Answer: B

Explanation:

QUESTION NO: 452

Which of the following WAN technologies utilizes an optical SONET carrier and has a maximum bandwidth of 155.54Mbps?

- A. DS3
- B. E3
- C. OC3
- D. T3

Answer: C

Explanation:

QUESTION NO: 453

A large corporate office is looking to place smaller network closets around campus to handle switching for remote workstations. To which of the following is this referring?

- A. MDF
- B. VPN
- C. RDP
- D. IDF

Answer: D

Explanation:

QUESTION NO: 454

Which of the following cables supports 10Gbps throughput and 100 meters as the maximum distance?

- A. T1 crossover
- B. Singlemode fiber
- C. CAT6a
- D. Coaxial

Answer: C

Explanation:

QUESTION NO: 455

Which of the following network topologies is ONLY possible between two users?

- A. Star
- B. Client-server
- C. Hybrid
- D. Peer-to-peer

Answer: D

Explanation:

QUESTION NO: 456

A technician is installing an 802.11n network. The technician is using a laptop that can connect at a maximum speed of 11 Mbps. The technician has configured the 802.11n network correctly but thinks it could be the type of WLAN card used on the laptop. Which of the following wireless standards is the WLAN card MOST likely using?

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

Answer: B

Explanation:

QUESTION NO: 457

A company recently added an addition to their office building. A technician runs new plenum network cables from the switch on one side of the company's gymnasium 80 meters (262 ft.) to the new offices on the other side, draping the wires across the light fixtures. Users working out of the new offices in the addition complain of intermittent network connectivity. Which of the following is MOST likely the cause of the connectivity issue?

- A. dB loss
- B. Distance
- C. Incorrect connector type
- D. EMI
- E. Crosstalk

Answer: D

Explanation:

QUESTION NO: 458

Which of the following characteristics allows an 802.11g WAP to have transfer speeds up to 108Mbps?

- A. MIMO technology
- B. Channel bonding
- C. Encryption type
- D. Frequency

Answer: B

Explanation:

QUESTION NO: 459

Which of the following cable types is MOST commonly used with POTS?

- A. CAT3
- B. Multimode
- C. CAT6
- D. Coaxial

Answer: A

Explanation:

QUESTION NO: 460

Which of the following technologies prevents network collisions to maximize safe delivery of network data?

- A. CSMA/CA
- B. DWDM
- C. RADIUS
- D. SONET

Answer: A

Explanation:

QUESTION NO: 461

A company is connected to an ISP, but owns the premise router with an internal CSU/DSU. Which of the following is considered the demarc?

- A. Premise router
- B. ISP router
- C. Smart jack
- D. CSU/DSU

Answer: C

Explanation:

QUESTION NO: 462

An administrator has added four switches to a campus network. The switch in wiring closet A is only connected to the switch in wiring closet C. The switch in wiring closet B is connected to the switch in wiring closet C as well as wiring closet D. The switch in wiring closet D is only connected to the switch in wiring closet B. Which of the following topologies is represented in this design?

- A. Ring
- B. Star
- C. Bus
- D. Mesh

Answer: C

Explanation:

QUESTION NO: 463

Which of the following cable types is employed to protect against interference in the physical environment or when security is a concern?

- A. STP
- B. RG-6
- C. Fiber
- D. RG-59

Answer: C

Explanation:

QUESTION NO: 464

Which of the following is a common connector used on a coaxial cable?

- A. RJ-45
- B. DB-25
- C. BNC
- D. LC

Answer: C

Explanation:

QUESTION NO: 465

At which of the following locations does the responsibility of a Telco provider cease?

- A. IDF
- B. CSU
- C. Demarc
- D. MDF

Answer: C

Explanation:

QUESTION NO: 466

Which of the following cables has a hard plastic cross inside the cable to separate each pair of wires?

- A. Coaxial
- B. CAT3
- C. CAT5
- D. CAT6a

Answer: D

Explanation:

QUESTION NO: 467

Which of the following connectors is used on a coaxial cable?

- A. F

- B. LC
- C. RJ-11
- D. ST

Answer: A

Explanation:

QUESTION NO: 468

Frequency, channel bonding, and MIMO configuration are all characteristics of which of the following networking technologies?

- A. Wi-Fi
- B. SONET
- C. T1/E1 Internet
- D. Satellite Internet

Answer: A

Explanation:

QUESTION NO: 469

A small office needs to connect one new system to their network in a distant office, but does not have the resources to install a new Ethernet wall jack, and does not want to use wireless. Which of the following is a simple, cost effective option for providing connectivity?

- A. SONET
- B. Multimode fiber
- C. 802.11n
- D. Broadband over Power Line

Answer: D

Explanation:

QUESTION NO: 470

Which of the following defines the pinout of an 8P8C eight pin modular jack for a CAT6a cable?

- A. 568B
- B. RJ-11
- C. RJ-45
- D. RS-232

Answer: A

Explanation:

QUESTION NO: 471

Which of the following WAN technologies has a MAXIMUM speed of 155.52Mbps?

- A. OC-3
- B. T3
- C. OC-12
- D. E1

Answer: A

Explanation:

QUESTION NO: 472

A technician is troubleshooting a problem where data packets are being corrupted. Which of the following connectivity problems should the technician check?

- A. Attenuation
- B. Latency
- C. Crosstalk
- D. External interference

Answer: C

Explanation:

QUESTION NO: 473

A technician is not getting a link light on two switches connected by a fiber cable. After the cable tests good, which of the following should the technician check NEXT?

- A. Open shorts
- B. Excessive DB loss
- C. TXRX reversed
- D. Split cables

Answer: C

Explanation:

QUESTION NO: 474

Which of the following is a square shaped fiber connector that is slightly smaller than a standard copper network cable connector?

- A. BNC
- B. FSMA
- C. MT-RJ
- D. ST

Answer: C

Explanation:

QUESTION NO: 475

Which of the following wiring distribution is used to connect wiring from equipment inside a company to carrier cabling outside a building?

- A. 66 block
- B. IDF
- C. MDF
- D. Patch panel

Answer: C

Explanation:

QUESTION NO: 476

Which of the following is used for SONET connections and requires a wavelength of 1310nm?

- A. 10GBASECX4
- B. 10GBASELX4
- C. 10GBASELW
- D. 10GBASESR

Answer: C

Explanation:

QUESTION NO: 477

Which wireless standard works at a MAXIMUM data rate of up to 54Mbps?

- A. 802.11b
- B. 802.11g
- C. 802.11n
- D. 802.1q

Answer: B

Explanation:

QUESTION NO: 478

Which of the following network topologies describes a network where each node is connected to multiple devices?

- A. Mesh
- B. Bus
- C. Star
- D. Ring

Answer: A

Explanation:

QUESTION NO: 479

The cost of installing fiber cable in a factory environment is too high. Which of the following cables should be used to minimize the effect of EMI?

- A. CAT6
- B. UTP
- C. Coaxial
- D. Crossover

Answer: C

Explanation:

QUESTION NO: 480

Which of the following is rated for speeds over 800Mbps?

- A. Coaxial
- B. DB-9
- C. CAT6
- D. CAT5e

Answer: C

Explanation:

QUESTION NO: 481

Which of the following is a packet switching WAN technology?

- A. Frame relay
- B. T1
- C. Asynchronous transfer mode
- D. ISDN

Answer: A

Explanation:

QUESTION NO: 482

Which of the following wireless standards has a MAXIMUM speed of only 1Mbps?

- A. IrDA
- B. 802.11b

- C. Bluetooth
- D. 802.11g

Answer: C

Explanation:

QUESTION NO: 483

Which of the following connector types is only used with copper media?

- A. ST
- B. SC
- C. MTRJ
- D. DB-9

Answer: D

Explanation:

QUESTION NO: 484

Which of the following is MOST commonly used with a fiber-optic network backbone?

- A. 100BaseFX
- B. 100BaseT
- C. 100BaseTX
- D. 1000BaseCX

Answer: A

Explanation:

QUESTION NO: 485

Which of the following technologies has more non-overlapping channels to utilize in a wireless LAN?

- A. 802.11a
- B. 802.11b
- C. 802.11i

D. Bluetooth

Answer: A

Explanation:

QUESTION NO: 486

Which of the following is used to allow multiple sources on a single optical cable?

- A. HSPA+
- B. MIMO
- C. DWDM
- D. SONET

Answer: C

Explanation:

QUESTION NO: 487

Which of the following cables would BEST be used to extend a network through an 80 feet (262 meters) machine shop that has many high voltage machines and generators running?

- A. CAT5
- B. CAT6
- C. Coaxial
- D. Fiber

Answer: D

Explanation:

QUESTION NO: 488

Which of the following wiring components is used as a central point of termination for all network jacks through a building area?

- A. Demarc
- B. CSU
- C. Patch Panel

D. Smart Jack

Answer: C

Explanation:

QUESTION NO: 489

Which of the following network topologies is MOST commonly used by online file sharing websites?

- A. Point to multipoint
- B. Peer-to-peer
- C. Ring
- D. Hybrid

Answer: B

Explanation:

QUESTION NO: 490

A SOHO company just installed new 802.11a wireless APs. All company laptops have gigabit LAN ports along with wireless-g cards. Which of the following is the issue with this setup?

- A. The laptops will have a max wireless speed of 300Mbps
- B. The wired network is likely not backwards compatible with the gigabit LAN ports on the laptops
- C. The wireless system will only function at a slow 11Mbps
- D. The laptops are only capable of functioning on 2.4GHz spectrum

Answer: D

Explanation:

QUESTION NO: 491

A technician installs a new CAT6 cable from one end of the office building to another, a total distance of 600 feet (182.88 meters). When a laptop is connected to the cable, it cannot connect to the Internet. Which of the following is MOST likely the cause of this problem?

- A. Bad connectors

- B. Crosstalk
- C. DB loss
- D. TXRX reversed

Answer: C

Explanation:

QUESTION NO: 492

Which of the following do 802.11 networks use to handle packet collisions from multiple nodes?

- A. CSMA/CA
- B. CSU/DSU
- C. Ethernet Tokens
- D. CSMA/CD

Answer: A

Explanation:

QUESTION NO: 493

A user needs maximum distance in a wireless connection. Which of the following should be configured to meet this goal?

- A. 802.11a at 54Mbps
- B. 802.11b at 1Mbps
- C. 802.11g at 11Mbps
- D. 802.11n at 130Mbps

Answer: B

Explanation:

QUESTION NO: 494

Which of the following types of cables would be used to connect a hub to a patch panel?

- A. Straight-through cable
- B. Crossover cable

- C. T1 Crossover cable
- D. Rollover cable

Answer: A

Explanation:

QUESTION NO: 495

Which of the following network topologies would be the BEST choice in providing network redundancy for an organization?

- A. Star
- B. Hybrid
- C. Mesh
- D. Point to Point

Answer: C

Explanation:

QUESTION NO: 496

Which of the following WAN technology types are mainly used over POTS lines to provide Internet connectivity? (Select TWO).

- A. Dialup
- B. DSL
- C. SONET
- D. Cable
- E. WiMAX
- F. LTE

Answer: A,B

Explanation:

QUESTION NO: 497

Which of the following connector types is MOST commonly used for serial connections?

- A. MTRJ
- B. RJ-11
- C. RS-232
- D. RJ-45

Answer: C

Explanation:

QUESTION NO: 498

Which of the following 802.11 standards can operate at both 2.4Ghz and 5.0Ghz?

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

Answer: D

Explanation:

QUESTION NO: 499

Which of the following cable types use pins 1 and 2 to transmit and 3 and 6 to receive?

- A. Coaxial
- B. Crossover
- C. Multimode fiber
- D. Straight-through

Answer: D

Explanation:

QUESTION NO: 500

Which of the following wireless standards has a maximum rate of less than 50 Mbps?

- A. 802.11a
- B. 802.11b

- C. 802.11g
- D. 802.11n

Answer: B

Explanation:

QUESTION NO: 501

A technician is tasked with replacing some older RS-232 serial printers. Which of the following ports would the technician most likely find on these printers?

- A. BNC
- B. DB-9
- C. LC
- D. RJ-11

Answer: B

Explanation:

QUESTION NO: 502

A technician is tasked with rewiring a CAT5e SOHO network with 10 existing computers. The users are currently running at 100 Mbps and would like to be upgraded to 1000 Mbps. Which of the following should the technician do FIRST?

- A. Upgrade the existing computers
- B. Purchase a new 802.11ac access point and install.
- C. Install CAT6 wiring for the SOHO network
- D. Verify the network cards can support 1Gbps

Answer: D

Explanation:

QUESTION NO: 503

A technician is assigned the task of connecting two buildings 125 meters apart (410 ft.). Which of the following cable types should the technician consider?

- A. CAT5e Cable
- B. CAT5 Cable
- C. Plenum
- D. Single mode fiber

Answer: D

Explanation:

QUESTION NO: 504

A technician is installing 802.11a wireless access points in an open warehouse 300 feet (91.44 meters) long and 200 feet (60.96 meters) wide. Which of the following would be the LEAST number of devices needed to provide coverage to the entire building?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: B

Explanation:

QUESTION NO: 505

Which of the following types of technologies should be used to provide a MAXIMUM 10 GB speed to a multi-mode fiber network?

- A. 10GBaseER
- B. 10GBaseSR
- C. 10GBaseTX
- D. 10GBaseT

Answer: B

Explanation:

QUESTION NO: 506

A technician is sorting patch cables into four bins labeled coaxial, crossover, straight-through, and fiber. The technician has a cable with RJ-45 ends. The wires at one end of the cable start with an

orange-white wire, while the wires at the other end of the cable start with a green wire. Into which of the following bins should this cable be placed?

- A. Crossover
- B. Fiber
- C. Straight-through
- D. Coaxial

Answer: A

Explanation:

QUESTION NO: 507

An 802.11a wireless network is functioning at which of the following frequencies?

- A. 1.0 GHz
- B. 1.5 GHz
- C. 2.4 GHz
- D. 5.0 GHz

Answer: D

Explanation:

QUESTION NO: 508

An 802.11b wireless network has a maximum data rate of:

- A. 11 Mbps.
- B. 20 Mbps.
- C. 28 Mbps.
- D. 54 Mbps.

Answer: A

Explanation:

QUESTION NO: 509

CAT6 has how many twisted copper pairs?

- A. 2
- B. 4
- C. 6
- D. 8
- E. 16

Answer: B

Explanation:

QUESTION NO: 510

A cable with visible space between the ends of the copper wires and the RJ-45 connector will cause which of the following problems to occur?

- A. EMI
- B. Short
- C. Reversed TXRX
- D. dB loss

Answer: B

Explanation:

QUESTION NO: 511

Which of the following connector types would require a punch down tool to attach a network cable to it?

- A. F-connector
- B. ST
- C. 110 block
- D. RJ-45

Answer: C

Explanation:

QUESTION NO: 512

Which of the following connectors is used for coaxial copper cable?

- A. BNC
- B. DB-9
- C. RJ-11
- D. ST

Answer: A

Explanation:

QUESTION NO: 513

Which of the following network media connectors can use a MAXIMUM of two copper wire pairs?

- A. F-connector
- B. RJ-11
- C. MTRJ
- D. RJ-45

Answer: B

Explanation:

QUESTION NO: 514

Which of the following is the MAXIMUM data transmission rate of 802.11a?

- A. 8Mbps
- B. 11Mbps
- C. 54Mbps
- D. 107Mbps

Answer: C

Explanation:

QUESTION NO: 515

Which of the following would be considered a Demarc extension?

- A. A patch cable connecting a cable modem with a wireless router
- B. Patch panel wiring

- C. Punch down block wiring
- D. Copper wire connecting the main PSTN point of entry to a wall data outlet

Answer: D

Explanation:

QUESTION NO: 516

A VoIP system running over a wireless network link is continually being reported as choppy. Which of the following is the cause of this issue?

- A. Frequency
- B. Latency
- C. Interference
- D. Encryption type

Answer: B

Explanation:

QUESTION NO: 517

A technician testing an Ethernet card uses a cable wired with pins 1,2 to pins 3,6 on the same RJ-45 plug. Which of the following describes what the technician is using?

- A. RS-232
- B. Rollover cable
- C. Loopback
- D. Point to point cable

Answer: C

Explanation:

QUESTION NO: 518

Which of the following network topologies is MOST likely used in remote access VPN?

- A. Point to Point
- B. Bus

- C. Ring
- D. Mesh

Answer: A

Explanation:

QUESTION NO: 519

A user's network connection is slow. After testing the cabling, the cable tester shows that only pins 1, 2, 3 and 6 are being used. After accurately terminating both ends, the tester displays the same results. Which of the following is the MOST likely cause?

- A. DB loss on the cable
- B. Interference
- C. Split cable
- D. Distance limitations

Answer: C

Explanation:

QUESTION NO: 520

A technician has been called about intermittent connectivity near IDF 2. Multiple cables were recently pulled through a common conduit. Which of the following is MOST likely the cause of the problem?

- A. Crosstalk
- B. Bad connectors
- C. Wrong DNS
- D. Duplicate IP address

Answer: A

Explanation:

QUESTION NO: 521

A network administrator wants to balance the amount of data between two networking cards. Which of the following can be used for two or more networking cards?

- A. NIC bonding
- B. Proxy server
- C. Firewall ACLs
- D. VLANs

Answer: A

Explanation:

QUESTION NO: 522

Which of the following allows 802.11n higher transfer speeds than the previous wireless standards?

- A. Dual frequency
- B. Enhanced encryption
- C. MIMO technology
- D. Backwards compatibility

Answer: C

Explanation:

QUESTION NO: 523

A network administrator needs to ensure there is no same channel interference for an 802.11n deployment with four WAPs. Which of the following channel setting configurations meets this criteria when using 40 MHz channels?

- A. 36, 40, 44, 48
- B. 36, 44, 52, 60
- C. 36, 44, 48, 52
- D. 36, 48, 60, 64

Answer: B

Explanation:

QUESTION NO: 524

In a small office environment, one computer is set up to provide Internet access to three other computers that are not interconnected. This is an example of which of the following topology

types?

- A. Peer-to-peer
- B. Point-to-multipoint
- C. Hybrid
- D. Point-to-point

Answer: B

Explanation:

QUESTION NO: 525

Which of the following is true of a client/server topology?

- A. Virtual servers are used to stream data to other remote servers
- B. Servers are used to connect to centralized clients
- C. Remote clients connect to a centralized server
- D. Remote clients connect to each other via a virtual server

Answer: C

Explanation:

QUESTION NO: 526

MIMO technology in the 802.11n standard provides for which of the following benefits?

- A. Channel expansion
- B. Gigabit wireless bandwidth
- C. Multipath support
- D. Channel bonding

Answer: C

Explanation:

Topic 4, Network Management

QUESTION NO: 527

Which of the following would a technician do to monitor remote traffic through an access point?

- A. Enable an SNMP agent
- B. Enable network mapping
- C. Set monitoring SSID
- D. Select WPA2

Answer: A

Explanation: Large networks with hundreds or thousands of nodes are difficult to manage without a large staff to monitor every computer. SNMP, which is widely used in local area networks (LANs), lets you monitor network nodes from a management host. You can monitor network devices such as servers, workstations, printers, routers, bridges, and hubs, as well as services such as Dynamic Host Configuration Protocol (DHCP) or Windows Internet Name Service (WINS).

QUESTION NO: 528

Which of the following commands can a network technician use to check whether the DNS server for a given domain is reachable?

- A. nmap
- B. nbtstat
- C. dig
- D. arp

Answer: C

Explanation:

The command dig is a tool for querying DNS nameservers for information about host addresses, mail exchanges, nameservers, and related information. This tool can be used from any Linux (Unix) or Macintosh OS X operating system. The most typical use of dig is to simply query a single host.

QUESTION NO: 529

A client's computer is unable to access any network resources. Which of the following utilities can a technician use to determine the IP address of the client's machine?

- A. ipconfig
- B. nslookup
- C. dig
- D. tracert

Answer: A

Explanation:

ipconfig is a command line utility available on all versions of Microsoft Windows starting with Windows NT. ipconfig is designed to be run from the Windows command prompt. This utility allows you to get the IP address information of a Windows computer. It also allows some control over active TCP/IP connections. ipconfig is an alternative to the older 'winipcfg' utility.

QUESTION NO: 530

A user's computer is unable to access the Internet. Which of the following utilities can a technician use to determine if DNS is working?

- A. nbstat
- B. arp
- C. nslookup
- D. ipconfig

Answer: C

Explanation:

nslookup is a network utility program used to obtain information about Internet servers. As its name suggests, the utility finds name server information for domains by querying DNS.

QUESTION NO: 531

Joe, a network technician, is troubleshooting in a wiring closet in 2011. The cabling to all the equipment does not match the documentation from 2007. Which of the following configuration management methods has been overlooked?

- A. Change management
- B. System logs
- C. Asset management
- D. Baselining

Answer: A

Explanation: Change management is the request for to change any configuration which is

documented.

QUESTION NO: 532

After a technician has identified the problem and its impact, which of the following steps should be performed NEXT?

- A. Implement preventative measures.
- B. Establish a plan of action to resolve the problem.
- C. Establish a theory of probable cause.
- D. Implement the solution or escalate as necessary.

Answer: C

Explanation:

By sorting out the probable causes and establishing a theory on them he will come to know whether it is right cause or not.

QUESTION NO: 533

Which of the following reasons would MOST likely be used to implement QoS and traffic shaping solutions?

- A. Redundancy
- B. Fault tolerance
- C. Unified communications
- D. Uptime requirements

Answer: C

Explanation: In unified communication video,voice,data have only one end gateway so to give priority to avoid delay in voice and video we use Qos.

QUESTION NO: 534

Ann, a network technician, has been troubleshooting a connectivity problem in the LAN room. Ann has diagnosed the problem and implemented a solution. Which of the following would be the NEXT step?

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

Answer: D

Explanation:

As to prove the cause of problem documents need to be attached so document finding is the first step after we implemented and diagnosed that problem.

QUESTION NO: 535

A network technician is troubleshooting a user's connectivity problem, and has determined a probable cause. The technician is at which step in the troubleshooting methodology?

- A. Verify full system functionality
- B. Identify the problem
- C. Establish a theory
- D. Implement the solution

Answer: C

Explanation:

Establish a theory means to correlate the finding and cause of a problem in order to fix the problem.

QUESTION NO: 536

In a SOHO environment, placing a VoIP unit on the outside edge of a LAN router enhances which of the following network optimization methods?

- A. Load balancing
- B. Quality of service
- C. Fault tolerance
- D. Traffic shaping

Answer: B

Explanation:

In unified communication video, voice, data have only one end gateway so to give priority to avoid

delay in voice and video we use Qos.

QUESTION NO: 537

A technician decides to upgrade a router before leaving for vacation. While away, users begin to report slow performance. Which of the following practices allows other technicians to quickly return the network to normal speeds?

- A. Change management
- B. Baselines
- C. Asset management
- D. Cable management

Answer: A

Explanation:

As soon as technician found a problem he generates a change management request to make changes to fast up the speed of router.

QUESTION NO: 538

Which of the following will allow a technician to monitor all network traffic when connected to a mirror port?

- A. VLAN tags
- B. SNMP
- C. Packet sniffer
- D. Syslog

Answer: C

Explanation:

Mirror port just send the packet to the port which is selected to grab the packet of any destination port to capture that packets we need packet sniffer.

QUESTION NO: 539

Which of the following would a network administrator recommend to satisfy fault tolerance needs within the datacenter?

- A. Multimode fiber
- B. Setting up a new hot site
- C. Central KVM system
- D. Central UPS system

Answer: D

Explanation:

For uninterrupted power supply we need ups as from this no power issue will come and our systems will remain safe.

QUESTION NO: 540

Which of the following would MOST likely be used by a network administrator to test DNS resolution?

- A. dig
- B. ipconfig
- C. netstat
- D. nbtstat

Answer: A

Explanation:

The command dig is a tool for querying DNS nameservers for information about host addresses, mail exchanges, nameservers, and related information. This tool can be used from any Linux (Unix) or Macintosh OS X operating system. The most typical use of dig is to simply query a single host.

QUESTION NO: 541

A technician is developing a shortcut sheet for the network to be able to assist in future troubleshooting scenarios. Which of the following should the network devices have to ease manageability efforts?

- A. MAC spoofing
- B. Dynamic IPs
- C. MAC filtering
- D. Static IPs

Answer: D

Explanation:

To give every user same ip every time because we have to document that ip slot we use static ip configuration.

QUESTION NO: 542

A technician is troubleshooting a computer that will not connect to the Internet. The PC is connected to the network. Which of the following tools should the technician use FIRST to understand the NIC configuration?

- A. Protocol analyzer
- B. ipconfig
- C. nslookup
- D. tracert

Answer: B

Explanation:

ipconfig is a command line utility available on all versions of Microsoft Windows starting with Windows NT. ipconfig is designed to be run from the Windows command prompt. This utility allows you to get the IP address information of a Windows computer. It also allows some control over active TCP/IP connections. ipconfig is an alternative to the older 'winipcfg' utility.

QUESTION NO: 543

A customer is implementing a VoIP infrastructure using an existing network. The customer currently has all network devices on the same subnet and would like the phones to be powered without the use of an AC adapter. Which of the following features should be enabled and configured to allow for reliable performance of the VoIP system? (Select THREE).

- A. WEP
- B. PoE
- C. VLANs
- D. SSL VPN
- E. IDS
- F. QoS

Answer: B,C,F

Explanation:

As customer don't want to use Ac adapter so Power over Ethernet is best option (PoE) as in this

switch provide power to phones. Phones will transfer their power requirement via cdp to vlan assigned. And Qos provide the voice packet priority over the data packets to avoid jitter.

QUESTION NO: 544

A company has just installed a new network switch for an expanding department. The company is also piloting the use of a VoIP phone system for this department. Which of the following should be enabled on the new network switch?

- A. WINS
- B. QoS
- C. NAT
- D. DHCP

Answer: B

Explanation:

Qos provide the voice packet priority over the data packets to avoid jitter and delay.

QUESTION NO: 545

Which of the following network protocols is used for a secure command line interface for management of network devices?

- A. SSH
- B. TELNET
- C. IGMP
- D. HTTP

Answer: A

Explanation:

Secure Shell is a cryptographic network protocol for secure data communication, remote command-line login, remote command execution, and other secure network services between two networked computers.

QUESTION NO: 546

A user is having difficulty connecting a laptop to the company's network via a wireless connection. The user can connect to the network via a wired NIC. The technician suspects the laptop's wireless NIC has failed. The technician performs hardware diagnostics on the wireless NIC and discovers the hardware is working fine. Which of the following network troubleshooting methodology steps should the technician do NEXT?

- A. Establish a plan of action to resolve the problem.
- B. Test the theory to determine a cause.
- C. Re-establish a new theory or escalate.
- D. Implement the solution or escalate as necessary.

Answer: C

Explanation:

As first theory doesn't work he will establish a new theory or escalate it to the vendor hardware company to work on it.

QUESTION NO: 547

An administrator is using a packet sniffer to try to determine what is causing the traffic on the network. The administrator sees a lot of packets on port 25. Which of the following traffic types is MOST likely using port 25?

- A. SMTP
- B. SSH
- C. DNS
- D. TELNET

Answer: A

Explanation: Port no. 25 is assigned to smtp as documented by iana.

QUESTION NO: 548

Which of the following should be used when throughput to the destination network is a priority?

- A. MTU
- B. Hop count
- C. Reliability of the path
- D. Bandwidth

Answer: D

Explanation:

QUESTION NO: 549

A network technician is concerned that a user is utilizing a company PC for file sharing and using a large amount of the bandwidth. Which of the following tools can be used to identify the IP and MAC address of the user's PC?

- A. System log
- B. History log
- C. Network sniffer
- D. Nslookup

Answer: C

Explanation:

Network sniffer is a computer program or a piece of computer hardware that can intercept and log traffic passing over a digital network or part of a network. As data streams flow across the network, the sniffer captures each packet and, if needed, decodes the packet's raw data, showing the values of various fields in the packet, and analyzes its content according to the appropriate RFC or other specifications.

QUESTION NO: 550

A recent flood in the office caused a lot of equipment to be damaged and the manager of the IT department would like a way to prevent such an incident in the future. Which of the following is the BEST way to mitigate such an equipment failure?

- A. Reduce the power input on the replacement servers.
- B. Cover the servers with plastic tarps.
- C. Purchase twice as many servers to create high availability clusters.
- D. Transfer the replacement servers offsite to a data center.

Answer: D

Explanation:

As we replace replacement servers offsite to datacenter this will cause lower traffic on over lan and will not cause failure of these server also.

QUESTION NO: 551

A user has network connectivity per the link lights on the NIC, but cannot access any network resources or the Internet. Which of the following commands should the technician run FIRST?

- A. arp
- B. ipconfig
- C. tracert
- D. route

Answer: B

Explanation:

As from ipconfig command technician will come to know whether he has assigned right ip address to NIC or not.

QUESTION NO: 552

A network administrator suspects that recent traffic problems could be caused by a high CPU load on company routers. Which of the following would BEST be used to monitor CPU cycles on the routers?

- A. TACACS+
- B. SNMP
- C. Syslog
- D. DOCSIS

Answer: B

Explanation:

SNMP, which is widely used in local area networks (LANs), lets you monitor network nodes from a management host. You can monitor network devices such as servers, workstations, printers, routers, bridges, and hubs, as well as services such as Dynamic Host Configuration Protocol (DHCP) or Windows Internet Name Service (WINS).

QUESTION NO: 553

In order to discover the currently unknown IP address of the next-hop router, a network administrator would begin by using which of the following tools?

- A. NMAP
- B. ping
- C. nslookup
- D. tracert

Answer: D

Explanation:

QUESTION NO: 554

A NAS appliance has had a failed NIC replaced. Now the NAS appliance is no longer visible on the network. Which of the following is the MOST likely cause of the problem?

- A. The network cable connecting the NAS to the network switch is bad.
- B. The network port that the appliance is connected to is assigned to the wrong VLAN.
- C. Port security on the Ethernet switch has disabled the port.
- D. Firewall needs to be updated for the new NAS device.

Answer: C

Explanation:

As by port security switch find the changes in mac address because nic is replaced so due to security reason switch shut that port.

QUESTION NO: 555

A large company has experienced Internet slowdowns as users have increased their use of the Internet. Which of the following can the Network Administrator use to determine the amount of bandwidth used by type of application?

- A. Network maps
- B. Traffic analysis
- C. Syslog
- D. ICMP

Answer: B

Explanation:

By traffic analysis administrator will come to whether user are using bandwidth for right purpose or not.

QUESTION NO: 556

A user reports intermittent network connectivity. Which of the following should a technician configure on the managed switch to help troubleshoot this issue?

- A. SMTP
- B. SNTP
- C. SNMP
- D. SNAT

Answer: C

Explanation:

SNMP, which is widely used in local area networks (LANs), lets you monitor network nodes from a management host. You can monitor network devices such as servers, workstations, printers, routers, bridges, and hubs, as well as services such as Dynamic Host Configuration Protocol (DHCP) or Windows Internet Name Service (WINS).

QUESTION NO: 557

When troubleshooting a connectivity issue, which of the following commands will give the technician a list of the host names connected to the network?

- A. ping
- B. nbtstat
- C. arp
- D. msconfig

Answer: B

Explanation:

The Nbtstat command is a great command to use when you need to display the NetBIOS over TCP/IP protocol statistics. The Nbtstat command can also be used to display NetBIOS name tables for both local and remote computers.

QUESTION NO: 558

A network administrator wants to see what ports are open on a server. Which of the following commands will show open ports?

- A. netstat
- B. tracert
- C. nbtstat
- D. nslookup

Answer: A

Explanation:

Netstat command displays various network related information such as network connections, routing tables, interface statistics, masquerade connections, multicast memberships etc.

QUESTION NO: 559

Users report that an internal file server is inaccessible. Of the following commands, which would be the MOST useful in determining network-layer connectivity?

- A. dig
- B. nbtstat
- C. netstat
- D. ping

Answer: D

Explanation:

The Nbtstat command is a great command to use when you need to display the NetBIOS over TCP/IP protocol statistics. The Nbtstat command can also be used to display NetBIOS name tables for both local and remote computers.

QUESTION NO: 560

Users have reported choppy audio in phone conversations since the implementation of SIP phones on the network. Which of the following should be implemented to alleviate the delays?

- A. Caching
- B. VoIP
- C. QoS
- D. SMTP

Answer: C

Explanation:

By QoS we can prioritize the voice packets over data network. So delay and latency will get reduced.

QUESTION NO: 561

A customer with a SOHO requires fast, secure, cost-effective access to the Internet. Which of the following would be the MOST appropriate solution? (Select TWO).

- A. OC3 line with built-in firewall
- B. DS3 line with a separate firewall
- C. Cable modem with a separate firewall
- D. Dial-up modem with separate firewall
- E. DSL router with firewall capabilities

Answer: C,E

Explanation:

QUESTION NO: 562

Users report that they are unable to access any external websites. The local intranet is not affected. A network technician has isolated the problem to a Linux-based server. Which of the following commands will enable the technician to view DNS information on the Linux-based server?

- A. nbtstat
- B. ipconfig
- C. dig
- D. netstat

Answer: C

Explanation:

By dig command technician will come to know whether name resolution is happening in correct way or not.

QUESTION NO: 563

Joe, a remote user, has called the helpdesk with an issue on his machine. The technician would like to remote into the machine for troubleshooting but does not know the IP address or host name. Which of the following commands can the technician ask Joe to execute to gain this information?

- A. netstat
- B. ipconfig
- C. ping
- D. traceroute

Answer: B

Explanation:

As ipconfig command will give the information which is assigned to nic for communication so that technician will contact joe with his ip.

QUESTION NO: 564

A user's workstation is experiencing multiple errors when trying to open programs. Which of the following log files should the technician review to assist in troubleshooting these errors?

- A. History Log
- B. Application Log
- C. System Log
- D. Security Log

Answer: B

Explanation:

As application logs provide the user wheather application is compatible with system or not.Or what is the cuase which is making trouble.

QUESTION NO: 565

Which of the following allows an administrator to reference performance and configuration information if there is a problem on the network?

- A. Wire schemes
- B. Change management
- C. Network diagrams
- D. System baselines

Answer: D

Explanation:

System baseline is the record line or changes record that administrator keep to match the effect after new configuration with previous configuration.

QUESTION NO: 566

Which of the following devices is utilized to ensure traffic does not become congested while traveling over redundant links?

- A. Access control list
- B. Load balancer
- C. Content filter
- D. Proxy server

Answer: B

Explanation:

Load balancing is a computer networking method for distributing workloads across multiple computing resources, such as computers, a computer cluster, network links, central processing units or disk drives. Load balancing aims to optimize resource use, maximize throughput, minimize response time, and avoid overload of any one of the resources.

QUESTION NO: 567

Which of the following devices can be utilized to monitor and block websites accessible by a company?

- A. WINS server
- B. DNS server
- C. Content filter
- D. Reverse proxy

Answer: C

Explanation:

On the Internet, content filtering (also known as information filtering) is the use of a program to screen and exclude from access or availability Web pages or e-mail that is deemed objectionable. Content filtering is used by corporations as part of Internet firewall computers and also by home computer owners, especially by parents to screen the content their children have access to from a computer.

QUESTION NO: 568

A technician sees suspicious traffic coming from a computer connected to a WAP. Which of the following can be used to stop this traffic while troubleshooting the problem?

- A. tracert
- B. QoS
- C. ipconfig
- D. MAC filtering

Answer: D

Explanation:

By doing MAC filtering technician can block the data coming from a specific mac address.

QUESTION NO: 569

An organization finds that most of the outgoing traffic on the network is directed at several Internet sites viewed by multiple computers simultaneously. Which of the following performance optimization methods would BEST alleviate network traffic?

- A. Load balancing internal web servers
- B. Redundant network resources
- C. Implement fault tolerance on the WAN
- D. Implement caching engines

Answer: D

Explanation:

A cache server is a dedicated network server or service acting as a server that saves Web pages or other Internet content locally. By placing previously requested information in temporary storage, or cache, a cache server both speeds up access to data and reduces demand on an enterprise's bandwidth.

QUESTION NO: 570

A technician is troubleshooting Internet connectivity for a PC. Which of the following is MOST likely the reason for Internet connectivity issues upon inspecting the routing table?

IPv4 Route Table

Active Routes:

Network Destination	Netmask	Gateway	Interface	Metric
127.0.0.0	255.0.0.0	On-link	127.0.0.1	306
127.0.0.1	255.255.255.255	On-link	127.0.0.1	306
127.255.255.255	255.255.255.255	On-link	127.0.0.1	306
172.16.10.0	255.255.0.0	On-link	172.16.10.101	261
172.16.10.101	255.255.255.255	On-link	172.16.10.101	261
172.30.255.255	255.255.255.255	On-link	172.16.10.101	261
224.0.0.0	240.0.0.0	On-link	127.0.0.1	306
224.0.0.0	240.0.0.0	On-link	172.16.10.101	261
255.255.255.255	255.255.255.255	On-link	127.0.0.1	306
255.255.255.255	255.255.255.255	On-link	172.16.10.101	261

- A. The router should be listed as 224.0.0.1
- B. The NIC is set to the wrong subnet mask
- C. The route of last resort is missing
- D. Loopback traffic is weighted higher than NIC interface traffic

Answer: C

Explanation:

The default route is missing from the table.

It looks like this:

Network Destination	Netmask	Gateway	Interface	Metric
0.0.0.0	0.0.0.0	192.168.1.1	192.168.1.12	25

QUESTION NO: 571

Which of the following methods would be implemented to correct a network slowdown caused by excessive video streaming?

- A. Traffic shaping

- B. Proxy server
- C. VPN concentrator
- D. High availability

Answer: A

Explanation:

As traffic shaping will prioritize the video packets over another packets and then video packets will travel fast on bandwidth.

QUESTION NO: 572

Users inform an administrator that the network is slow. The administrator notices the bulk of the traffic is SIP and RTP traffic. Which of the following could the administrator do to help BEST alleviate the traffic congestion for the users?

- A. Create an ACL on the switches and routers that are dropping SIP and RTP packets.
- B. Create a QoS policy prioritizing users over RTP and SIP traffic.
- C. Create another VLAN for SIP and RTP traffic.
- D. Create a rule to throttle SIP and RTP to 10Kbps or less.

Answer: C

Explanation:

As if we will create a vlan for sip and rtp traffic only this traffic will flow from the ports then .

QUESTION NO: 573

Which of the following is the control when observing network bandwidth patterns over time?

- A. Network log
- B. Baseline
- C. Flow data
- D. Interface statistics

Answer: B






Explanation:

To successfully baseline a network it is important to consider two functions; performance at protocol level and performance at application level. There are many significant metrics to consider at the protocol level, but only a few which are critical. The most important is bandwidth utilization

compared with bandwidth availability. The most likely cause of poor network performance is insufficient bandwidth. Trending bandwidth utilization allows you to recognize problem areas, provide enough bandwidth to reach performance objectives, and predict future capacity requirements. Changes in bandwidth utilization patterns also provide a clear indication of network usage alterations, such as a change in end-user behavior, or the unauthorized addition of an application.

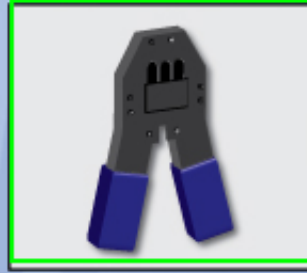
QUESTION NO: 574 DRAG DROP

Drag and drop each networking tool to the MOST appropriate descriptor. Each tool may only be used once.

Used to verify known good patch cables		
Used to correct open short on a cable		
Used to determine which port a CAT6 cable is connected to	<p>ActualTests</p>	
Used to verify functionality after a NIC is installed		
Used to terminate a cable at a 110 block		

Answer:

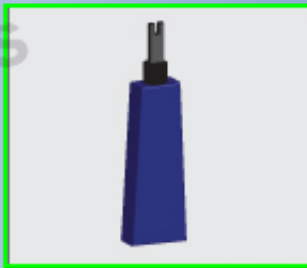
Used to verify known good patch cables



Used to correct open short on a cable



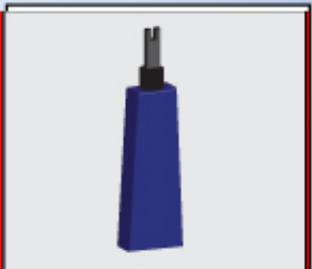
Used to determine which port a CAT6 cable is connected to



Used to verify functionality after a NIC is installed



Used to terminate a cable at a 110 block



Explanation:

Used to verify known good patch cables



Used to correct open short on a cable



Used to determine which port a CAT6 cable is connected to



Used to verify functionality after a NIC is installed



Used to terminate a cable at a 110 block



QUESTION NO: 575

Which of the following can assist when troubleshooting a cable that meets the 1000BaseLX specification?

- A. Multimeter
- B. OTDR
- C. Link state
- D. Protocol analyzer

Answer: B

Explanation:

QUESTION NO: 576

Which of the following tools allows an administrator to identify a cable?

- A. Multimeter
- B. Cable stripper
- C. Toner
- D. Punch down tool

Answer: C

Explanation:

QUESTION NO: 577

An administrator would like to decrease the load time of common websites that employees review daily. Which of the following can be installed?

- A. Load balancing
- B. VPN concentrator
- C. Caching server
- D. Fault tolerance

Answer: C

Explanation:

QUESTION NO: 578

The technician is working on a DNS problem. Which of the following software tool is the technician MOST likely to use to troubleshoot this issue?

- A. nslookup
- B. ipconfig
- C. ping
- D. nbtstat

Answer: A

Explanation:

QUESTION NO: 579

Which of the following security devices can receive and process HTTP requests from hosts to allow or deny traffic for web browsing purposes only?

- A. Load balancer
- B. VPN concentrator
- C. Proxy server
- D. DNS server

Answer: C

Explanation:

QUESTION NO: 580

A technician suspects invalid information in the local DNS cache of a workstation. Which of the following commands can be used to clear this?

- A. nslookup
- B. ifconfig
- C. dig
- D. ipconfig

Answer: D

Explanation:

QUESTION NO: 581

A technician is unable to easily trace physical connections within a network rack. Which of the following practices would save time in the future?

- A. Change management
- B. Cable management
- C. Asset management
- D. Setting baselines

Answer: B

Explanation:

QUESTION NO: 582

Which of the following syslog severity codes indicates an emergency and that the system is unusable?

- A. 0
- B. 1
- C. 6
- D. 7

Answer: A

Explanation:

QUESTION NO: 583

An administrator is attempting to troubleshoot a program that is unable to resolve IP addresses from FQDNs. Which of the following commands is used to check reverse DNS settings?

- A. dig
- B. ifconfig
- C. nbtstat
- D. route

Answer: A

Explanation:

QUESTION NO: 584

Due to a recent change in company policy, all users managing network infrastructure devices must use SSH v2 and all administrative activity must be collected on a central store. Which of the following should the network administrator deploy to comply with the new collection requirements?

- A. Network intrusion detection
- B. Traffic analysis tool
- C. Syslog server
- D. Network sniffer

Answer: C

Explanation:

QUESTION NO: 585

A network is having problems with traffic flowing to several critical websites that are used for necessary company work. Which of the following appliances would BEST handle network traffic to increase network performance?

- A. Caching engine
- B. Traffic shaper
- C. Network based firewall
- D. Packet sniffer

Answer: B

Explanation:

QUESTION NO: 586

A company needs to find a way to best route latency-sensitive traffic appropriately on an already congested network. Which of the following would be BEST suited for this purpose?

- A. QoS
- B. PPPoE
- C. RADIUS
- D. VPN

Answer: A

Explanation:

QUESTION NO: 587

Which of the following BEST describes a load balancer?

- A. A device that splits traffic between multiple nodes of a clustered service.
- B. A device that allows multiple computers to access the internet through a single public IP address.
- C. A device that filters internet content based on rules and ACLs.
- D. A device that separates users onto separate WAPs for even distribution.

Answer: A

Explanation:

QUESTION NO: 588

An application is using port 2000 on a PC. Which of the following could an administrator do to determine what software is listening on that port?

- A. Run netstat
- B. Run dig
- C. Run nbtstat
- D. Run tracert

Answer: A

Explanation:

QUESTION NO: 589

A large company has experienced Internet slowdowns as users have increased their use of the Internet. Which of the following can the Network Administrator use to determine the amount of bandwidth used by type of application?

- A. Network maps
- B. Traffic analysis
- C. Syslog
- D. ICMP

Answer: B

Explanation:

QUESTION NO: 590

Which of the following should be installed to prevent inappropriate websites from being viewed?

- A. Load balancer
- B. VPN concentrator
- C. Content filter
- D. Proxy server

Answer: C

Explanation:

QUESTION NO: 591

Which of the following can a technician use when installing a wireless network in a lounge to prevent inappropriate website images?

- A. Content filter
- B. VPN concentrator
- C. Load balancer
- D. Proxy server

Answer: A

Explanation:

QUESTION NO: 592

A network administrator is reviewing logs and notices that a device with a public IP address is trying to access the web server RDP port. Which of the following tools can be used to resolve the domain of the public IP address?

- A. arp
- B. nslookup
- C. ipconfig
- D. netstat

Answer: B

Explanation:

QUESTION NO: 593

A technician is having issues accessing the Internet from the workstation. They are able to ping the DNS server and their default gateway. Which of the following commands can be used to verify

DNS is functioning properly?

- A. nslookup
- B. netstat
- C. traceroute
- D. nbtstat

Answer: A

Explanation:

QUESTION NO: 594

A company has gone through several upgrades on their network but unfortunately have no way of identifying who approved the upgrades. Which of the following should be implemented to track this type of work?

- A. Change management
- B. Asset management
- C. Access log
- D. Baselines

Answer: A

Explanation:

QUESTION NO: 595

Which of the following would be used on a network to ensure access to resources if a critical host becomes unavailable?

- A. QoS
- B. CARP
- C. VLAN
- D. DHCP server

Answer: B

Explanation:

QUESTION NO: 596

Which of the following is used to ensure traffic flows efficiently on multiple T-1 circuits?

- A. DNS server
- B. Content filter
- C. Proxy server
- D. Load balancer

Answer: D

Explanation:

QUESTION NO: 597

A network technician is trying to run a protocol analyzer and is instructed to record the chimney offload state of TCP. Which of the following utilities did the technician use to check this parameter with the output listed below?

Querying active state...

TCP Global Parameters

Receive-Side Scaling State : enabled

Chimney Offload State : disabled

Receive Window Auto-Tuning Level : normal

Add-On Congestion Control Provider : ctcp

ECN Capability : disabled

RFC 1323 Timestamps : disabled

- A. net
- B. netstat
- C. nbtstat
- D. netsh

Answer: D

Explanation:

QUESTION NO: 598

Which of the following is used to explain guidelines for users while using network resources?

- A. Network cut sheet
- B. Baselines
- C. Acceptable use policy
- D. Regulations

Answer: C

Explanation:

QUESTION NO: 599

Which of the following commands would be used to identify how many hops a data packet makes before reaching its final destination?

- A. route
- B. netstat
- C. traceroute
- D. ping 127.0.0.1

Answer: C

Explanation:

QUESTION NO: 600

A company has asked the network administrator to restrict access to any websites with unauthorized material. Which of the following technologies would BEST accomplish this?

- A. Content filter
- B. Packet filter
- C. IPS
- D. IDS

Answer: A

Explanation:

QUESTION NO: 601

Which of the following commands can be used on a server to display IP information for a given interface?

- A. nbtstat
- B. dig
- C. ifconfig
- D. msconfig

Answer: C

Explanation:

QUESTION NO: 602

Which of the following can determine the last time an address lease was renewed on a network device?

- A. System log
- B. Packet sniffer
- C. Time domain reflectometer
- D. Stateful packet filter

Answer: A

Explanation:

QUESTION NO: 603

Which of the following network monitoring resources would be used to analyze possible connectivity issues such as duplex mismatches and uptime statistics?

- A. Protocol analyzer
- B. Syslog server
- C. Packet sniffer
- D. IPS logs

Answer: B

Explanation:

QUESTION NO: 604

Which of the following switches is used with ARP to display the cache entry for a specific IP address?

- A. -a
- B. -d
- C. -g
- D. -s

Answer: A

Explanation:

QUESTION NO: 605

An administrator wants to translate an internal workstation name to an IP address. Which of the following commands would be used?

- A. ifconfig
- B. nslookup
- C. netstat
- D. ipconfig

Answer: B

Explanation:

QUESTION NO: 606

A network technician is assigned to view websites that a user has visited. Which of the following should the technician review to find this information?

- A. Event viewer
- B. History logs
- C. Network sniffer
- D. System logs

Answer: B

Explanation:

QUESTION NO: 607

It has been suspected that one of the users is using the network inappropriately. As a preventive measure HR has authorized the IT department to enable port mirroring on the user's network port. Which of the following devices would be used to monitor the network activity?

- A. Port analyzer
- B. Multimeter
- C. Network sniffer
- D. Cable certifier

Answer: C

Explanation:

QUESTION NO: 608

A user reports that one of their critical programs no longer functions after a recent router upgrade in the office. A network technician is called in to troubleshoot the issue and documentation shows that the software needs full open connections over ports 558, 981, and 382 in order to function. Which of the following tools could the technician BEST use to troubleshoot this issue?

- A. NET USE
- B. IPCONFIG
- C. TRACEROUTE
- D. TELNET

Answer: D

Explanation:

QUESTION NO: 609

Which of the following can a technician use when a company implements redundant WAN links?

- A. Content filter
- B. Load balancer
- C. Proxy server
- D. VPN concentrator

Answer: B

Explanation:

QUESTION NO: 610

Which of the following requires congestion to occur before enabling traffic prioritization?

- A. Quality of Service
- B. IGMP snooping
- C. Flow control
- D. WAN optimization

Answer: A

Explanation:

QUESTION NO: 611

An administrator has added QoS settings to the LAN switches prioritizing RTP. Which of the following systems is the Administrator MOST concerned with in this scenario?

- A. Phone communications
- B. Web site downloads
- C. Streaming video clients
- D. Client bittorrent abilities

Answer: A

Explanation:

QUESTION NO: 612

Which of the following network performance optimization methods allows for frequently accessed sites to be housed locally, thereby reducing bandwidth requirements?

- A. Load balancing
- B. Traffic policing
- C. Caching engines
- D. Traffic shaping

Answer: C

Explanation:

QUESTION NO: 613

A network technician suspects that there is an issue with the routing table on a Windows-based server. Which of the following commands will enable the technician to validate this hypothesis?

- A. route print
- B. route
- C. ipconfig
- D. tracert

Answer: A

Explanation:

QUESTION NO: 614

The day network administrator is having problems on the network and realizes that the night administrator implemented a new device that is causing broadcast traffic. Which of the following should be implemented to avoid miscommunication between the administrators?

- A. Asset management
- B. System baselines
- C. System logging
- D. Change management

Answer: D

Explanation:

QUESTION NO: 615

A network administrator opens up the RDP port to access network resources from home. Several months later, the administrator's account is getting locked out constantly. After closing the port, which of the following should be used to identify the source of the attack?

- A. Network maps
- B. Change management
- C. Log analysis
- D. Protocol analyzer

Answer: C

Explanation:

QUESTION NO: 616

Which of the following devices acts as a gateway between clients and servers?

- A. WINS server
- B. Proxy server
- C. Content filter
- D. DNS server

Answer: B

Explanation:

QUESTION NO: 617

An IT manager is looking for a solution that can easily trace back suspicious Internet browsing to particular users at a company. Which of the following can BEST provide this functionality?

- A. Layer 3 managed switch
- B. VPN concentrator
- C. Load balancer
- D. Content filter

Answer: D

Explanation:

QUESTION NO: 618

When dealing with high bandwidth applications such as VoIP and VTC, which of the following network performance optimization tools should be implemented to ensure BEST performance?

- A. Fault tolerance
- B. Load balancing
- C. Caching engines
- D. QoS

Answer: D

Explanation:

QUESTION NO: 619

A company has been just opened a new site in another country. Both sites share information across the WAN continuously throughout the business day. Which of the following should be implemented to ensure both sites are accessible?

- A. Traffic shaping
- B. QoS
- C. Caching engines
- D. High availability

Answer: D

Explanation:

QUESTION NO: 620

A technician is troubleshooting a network connectivity issue on a laptop. The technician wants to verify the NIC is functioning on the laptop. Which of the following commands should the technician use?

- A. ping 127.0.0.1
- B. ping 169.254.0.1
- C. tracert 192.168.0.1
- D. nslookup 10.4.0.1

Answer: A

Explanation:

QUESTION NO: 621

A technician is upgrading the wiring in an older office building. The building currently contains some CAT3, CAT5, and CAT6 cables. The technician cannot visually distinguish between the cables because they are all the same color. Which of the following tools would help the technician determine which wires are the CAT3 and CAT5 cables needing to be replaced with CAT6 ones?

- A. Cable certifier
- B. Toner probe

- C. Cable tester
- D. Crimper

Answer: A

Explanation:

QUESTION NO: 622

A network technician is sent to troubleshoot a phone line in the building. The user reports a dial tone is not available when attempting to place a call. Which of the following tools should the technician utilize in this scenario?

- A. Protocol analyzer
- B. Punch down tool
- C. Multimeter
- D. Toner probe

Answer: D

Explanation:

QUESTION NO: 623

Various desktop computers are not getting a link light even though the patch cables were replaced. Cables on a 110-block patch panel are suspected to be causing the issues. Which of the following hardware tools would MOST likely be used to troubleshoot and resolve the issue? (Select TWO).

- A. Cable certifier
- B. Ping command
- C. Punch down tool
- D. Crimper
- E. Toner probe

Answer: A,C

Explanation:

QUESTION NO: 624

Which of the following tools would a technician use to terminate CAT6 wires to the inside of the

wall jack?

- A. Toner probe
- B. Cable tester
- C. Punch down
- D. Crimper

Answer: C

Explanation:

QUESTION NO: 625

The network technician is working in an office that has both VoIP telephone lines and analog lines. A user states that the fax machine is not sending or receiving faxes. The network technician determines that the fax machine uses an analog phone line. Which of the following tools would the technician use to troubleshoot the issue?

- A. Cable tester
- B. Buttset
- C. Toner probe
- D. Cable certifier

Answer: B

Explanation:

QUESTION NO: 626

A user is having trouble with their fax machine disconnecting during transmissions. The technician believes that a DSL signal may be on the same line as the fax. Which of the following tools would MOST likely help prove this hypothesis?

- A. Multimeter
- B. Cable tester
- C. Lineman's handset
- D. Toner probe

Answer: C

Explanation:

QUESTION NO: 627

Users are reporting that all of a sudden some of the files stored on the remote file server share are becoming corrupted and cannot be opened. A technician is dispatched to the server room to troubleshoot. The technician verifies that no changes to the network infrastructure occurred recently. Which of the following tools is MOST likely to reveal why files are becoming corrupted?

- A. Environmental monitor
- B. OTDR
- C. Cable tester
- D. Punch down tool

Answer: A

Explanation:

QUESTION NO: 628

Which of the following tools would a technician use to determine if a CAT6 cable is properly terminated?

- A. Cable tester
- B. Punch down tool
- C. Crimper
- D. Multimeter

Answer: A

Explanation:

QUESTION NO: 629

An IP camera has a failed PoE NIC. This is the third time in months that a PoE NIC has failed on this device. The technician suspects a possible power issue. Which of the following should be used to test the theory?

- A. Toner probe
- B. Loopback plug
- C. Protocol analyzer
- D. Multimeter

Answer: D

Explanation:

QUESTION NO: 630

A company wants an administrator to perform a vulnerability test. The administrator finds the company has a POTS phone system. Which of the following can the administrator use to point out the phone system vulnerability?

- A. Honeypot
- B. Butt set
- C. Spyware
- D. Blue jacking

Answer: B

Explanation:

QUESTION NO: 631

A technician is looking to create a new network cable. Which of the following tools would assist in creating and testing a cable properly? (Select TWO).

- A. Toner probe
- B. Cable certifier
- C. Butt set
- D. Crimper
- E. Network analyzer

Answer: B,D

Explanation:

QUESTION NO: 632

A technician has noticed that the RJ-45 connector on the end of a user's patch cable was stripped too far back from the connector allowing for cross talk. Which of the following tools would a technician use to attach a new connector to eliminate this issue?

- A. Crimper
- B. Cable certifier

- C. Loopback plug
- D. Punch down tool

Answer: A

Explanation:

QUESTION NO: 633

A technician is terminating a new run of network cables to a 110 block. Which of the following tools would the technician use?

- A. Loopback plug
- B. Crimper tool
- C. Punch down tool
- D. Cable tester

Answer: C

Explanation:

QUESTION NO: 634

A computer has lost network connectivity. The network technician determines the network cable and the cable drop are both good. Which of the following would the technician use to test the computer's NIC?

- A. Cable certifier
- B. Throughput tester
- C. Loopback plug
- D. Multimeter

Answer: C

Explanation:

QUESTION NO: 635

A technician has been tasked with planning and implementing a new wired-only network for a small office. A hardware list has been compiled, but the technician is unsure about the final necessary item. Which of the following will BEST complete the small wired network setup?

- (1) 1000 foot CAT6 spool
- (1) crimper
- (1) 16 port gigabit switch
- (20) RJ-45 connectors
- (12) RJ-45 wall jacks
- (1) _____

- A. Compression tool
- B. Punch down tool
- C. Network map
- D. Multimeter

Answer: B

Explanation:

QUESTION NO: 636

There has been an increase in Help Desk tickets related to web portal user accounts being locked out. Which of the following resources would be used to analyze the issue?

- A. Router logs
- B. Protocol analyzer
- C. Firewall logs
- D. Application logs

Answer: D

Explanation:

QUESTION NO: 637

Which of the following tools would a technician use to determine if a CAT6 patch cable has an open or short?

- A. OTDR
- B. Cable tester
- C. Toner probe
- D. Protocol analyzer

Answer: B

Explanation:

QUESTION NO: 638

A technician has traced a POTS line to a 110 block. Which of the following devices would the technician MOST likely use to see if the line carries a dial tone?

- A. Toner Probe
- B. Punch Down Tool
- C. Protocol Analyzer
- D. Butt Set

Answer: D

Explanation:

QUESTION NO: 639

An administrator has set up several IPSec and SSL tunnels to terminate on a single device. Which of the following has the administrator deployed?

- A. Proxy Server
- B. Load Balancer
- C. VPN Concentrator
- D. Web-Application Firewall

Answer: C

Explanation:

QUESTION NO: 640

A technician has to terminate a CAT3 cable to a 110 block. Which of the following tools should the technician use?

- A. Loopback plug
- B. Multimeter
- C. Punch down
- D. Crimper

Answer: C

Explanation:

QUESTION NO: 641

Which of the following configuration management documents is used to describe how a computer performs after initial installation onto a network?

- A. Baseline
- B. Network map
- C. Asset management
- D. Installation guide

Answer: A

Explanation:

QUESTION NO: 642

When implementing video streaming from the Internet to an always on device, it is best to employ which of the following services to minimize latency issues?

- A. QoS
- B. EIGRP
- C. PPTP
- D. OSPF

Answer: A

Explanation:

QUESTION NO: 643

A technician is having trouble identifying a computer on a network. The technician has the IP address of the computer, but needs to find the hostname of the computer. Which of the following commands should the technician use?

- A. ipconfig /a
- B. ping -t
- C. ping -a

D. netstat

Answer: C

Explanation:

QUESTION NO: 644

A public website using round robin DNS is an example of:

- A. load balancing
- B. QoS
- C. Caching engines
- D. Traffic shaping

Answer: A

Explanation:

QUESTION NO: 645

The company's main server is using 98% of its available resources and Joe needs to evenly distribute the work to another server using which of the following?

- A. VPN concentrator
- B. Content filter
- C. Proxy server
- D. Load balancer

Answer: D

Explanation:

QUESTION NO: 646

A technician discovers that the throughput of sales traffic on the primary connection is constantly reaching maximum level, and the sales users are beginning to report slowness while accessing cloud based applications. The technician allows traffic to use the secondary connection so that traffic would share both connections. This is an example of which of the following?

- A. QoS

- B. Caching engines
- C. Traffic shaping
- D. Load balancing

Answer: D

Explanation:

QUESTION NO: 647

A technician sets up a network with multiple WAN connections, backup power sources, multiple firewalls, and a mesh configuration for network switching. All of the software and hardware has fault detection designed to provide a system with minimal down time. Which of the following is the BEST example of this optimization method?

- A. Load balancing
- B. High availability
- C. Caching engines
- D. Quality of Service

Answer: B

Explanation:

QUESTION NO: 648

An administrator edits the network firewall configuration. After editing the configuration, the administrator logs the date and time of the edit and why it was performed in the firewall documentation. Which of the following BEST describes these actions?

- A. Asset management
- B. Baselines
- C. Network maps
- D. Change management

Answer: D

Explanation:

QUESTION NO: 649

A workstation on the third floor of the company building is having connectivity issues. The NIC and

patch cable have been tested and found to be working properly. Which of the following would MOST likely have the information the administrator would need to locate and test the remaining cabling and connections?

- A. Network maps
- B. Network baseline
- C. Asset management
- D. Change management

Answer: A

Explanation:

QUESTION NO: 650

Which of the following devices allows for multiple web servers to host the same web page and for traffic to be distributed between them according to some metric?

- A. Proxy server
- B. VPN concentrator
- C. Load balancer
- D. Content filter

Answer: C

Explanation:

QUESTION NO: 651

An administrator can use packet tags to configure which of the following?

- A. VLAN
- B. NAT
- C. PoE
- D. QoS

Answer: D

Explanation:

QUESTION NO: 652

An administrator has been experiencing slower than normal performance on a server. The administrator suspects that a developer is currently uploading large files to it from an internal network PC. Which of the following will display established connections to the server on the FTP port?

- A. ifconfig
- B. nslookup
- C. netstat
- D. arp

Answer: C

Explanation:

QUESTION NO: 653

A content filter is MOST likely installed on which of the following servers?

- A. Proxy server
- B. TACACS+ server
- C. DNS server
- D. DHCP server

Answer: A

Explanation:

QUESTION NO: 654

Which of the following can be used to prioritize network streams to optimize performance for certain traffic types?

- A. VLAN
- B. VPN
- C. QoS
- D. PoE

Answer: C

Explanation:

QUESTION NO: 655

A network technician has been asked to look into a report from the IDS to determine why traffic is being sent from an internal FTP server to an external website. Which of the following tools can be used to inspect this traffic?

- A. Router firewall
- B. Ping and traceroute
- C. Throughput tester
- D. Protocol analyzer

Answer: D

Explanation:

QUESTION NO: 656

Users are reporting a large decrease in network performance. After further investigation, the network administrator notices large amounts of traffic coming from a specific IP address. The network administrator needs to identify the payload of the network traffic. Which of the following could be used to collect that information?

- A. ipconfig
- B. ping
- C. sniffer
- D. route

Answer: C

Explanation:

QUESTION NO: 657

Which of the following can be used to decrypt SSL packets which encapsulate internal network addresses in the payload?

- A. Proxy server
- B. Content filter
- C. Load balancer
- D. VPN concentrator

Answer: D

Explanation:

QUESTION NO: 658

A company has a server with redundant power supplies. Which of the following is this an example of?

- A. Traffic shaping
- B. Caching engines
- C. Fault tolerance
- D. Load balancing

Answer: C

Explanation:

QUESTION NO: 659

A technician needs to verify the time of a power outage. Which of the following may be used to determine this information?

- A. Network baseline
- B. Tracert
- C. System logs
- D. Protocol analyzer

Answer: C

Explanation:

QUESTION NO: 660

A server that filters traffic between a WAN and a LAN is which of the following?

- A. Proxy server
- B. RAS server
- C. Default gateway
- D. Email server

Answer: A

Explanation:

QUESTION NO: 661

A technician is troubleshooting a host name being directed to the wrong system. The 'arp -a' command line utility is used to identify and display which of the following?

- A. All TCP/IP connections and listening ports
- B. Internet-to-adapter translation tables
- C. Information to help diagnose DNS issues
- D. Active sockets and connections

Answer: B

Explanation:

QUESTION NO: 662

A new technician has been tasked with implementing a QoS policy for the Network. The technician decides it would be best to monitor the information traversing the network to gain statistical information on ports and protocols utilized. Which of the following tools should the technician use to complete this objective QUICKEST?

- A. Traffic analyzer
- B. Network sniffer
- C. SNMPv3
- D. System logs

Answer: A

Explanation:

QUESTION NO: 663

An administrator is trying to retrieve management information from the network devices on their LAN. Which of the following monitoring resources provides the ability to collect this information encrypted over the network?

- A. SNMPv3
- B. VTP

- C. CDP
- D. IPSec

Answer: A

Explanation:

QUESTION NO: 664

A network administrator currently collects log files from several different servers. Which of the following would allow the network administrator to collect log files on a centralized host?

- A. The network administrator should install and configure a traffic analysis server.
- B. The network administrator should install and configure a DMZ server.
- C. The network administrator should install and configure a syslog server.
- D. The network administrator should install and configure a network sniffer.

Answer: C

Explanation:

QUESTION NO: 665

Which of the following is used to limit the amount of bandwidth used on a link for different applications to improve overall performance?

- A. QoS
- B. Fault tolerance
- C. Load balancing
- D. Traffic shaping

Answer: D

Explanation:

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QUESTION NO: 666

The security administrator needs to restrict specific devices from connecting to certain WAPs. Which of the following security measures would BEST fulfill this need?

- A. WAP placement
- B. MAC address filtering
- C. Content filtering
- D. Encryption type and strength

Answer: B

Explanation: MAC Filtering (or EUI filtering, or layer 2 address filtering) is a security access control method whereby the 48-bit address assigned to each network card is used to determine access to the network.

QUESTION NO: 667

Which of the following performs authentication and provides a secure connection by using 3DES to encrypt all information between two systems?

- A. HTTPS
- B. SSH
- C. RSA
- D. SSL

Answer: B

Explanation: DES encryption algorithm encrypts data three times. Three 64-bit keys are used, instead of one, for an overall key length of 192 bits (the first encryption is encrypted with second key, and the resulting cipher text is again encrypted with a third key).

QUESTION NO: 668

Several users are reporting connectivity issues with their laptops. Upon further investigation, the network technician identifies that their laptops have been attacked from a specific IP address outside of the network. Which of the following would need to be configured to prevent any further attacks from that IP address?

- A. Port security
- B. IDS
- C. Firewall rules

D. Switch VLAN assignments**Answer: C**

Explanation: Firewall rules block or allow specific traffic passing through from one side of the router to the other. Inbound rules (WAN to LAN) restrict access by outsiders to private resources, selectively allowing only specific outside users to access specific resources. Outbound rules (LAN to WAN) determine what outside resources local users can have access to.

QUESTION NO: 669

The company is setting up a new website that will be requiring a lot of interaction with external users. The website needs to be accessible both externally and internally but without allowing access to internal resources. Which of the following would MOST likely be configured on the firewall?

- A. PAT
- B. DHCP
- C. DMZ
- D. NAT

Answer: C

Explanation: DMZ is a physical or logical subnetwork that contains and exposes an organization's external-facing services to a larger and untrusted network, usually the Internet. The purpose of a DMZ is to add an additional layer of security to an organization's local area network (LAN); an external attacker only has access to equipment in the DMZ, rather than any other part of the network.

QUESTION NO: 670

Which of the following attacks would allow an intruder to do port mapping on a company's internal server from a separate company server on the Internet?

- A. SYN flood
- B. Teardrop
- C. Smurf
- D. FTP bounce

Answer: D

Explanation: FTP bounce attack is an exploit of the FTP protocol whereby an attacker is able to use the PORT command to request access to ports indirectly through the use of the victim machine as a middle man for the request.

QUESTION NO: 671

Which of the following would be used to check whether a DoS attack is taking place from a specific remote subnet?

- A. Syslog files
- B. Honeypot
- C. Network sniffer
- D. tracert

Answer: C

Explanation: A network sniffer monitors data flowing over computer network links. It can be a self-contained software program or a hardware device with the appropriate software or firmware programming.

QUESTION NO: 672

An unusual amount of activity is coming into one of the switches in an IDF. A malware attack is suspected. Which of the following tools would appropriately diagnose the problem?

- A. Cable tester
- B. Protocol analyzer
- C. Load balancer
- D. OTDR

Answer: B

Explanation: A packet analyzer is a computer program or a piece of computer hardware that can intercept and log traffic passing over a digital network or part of a network. As data streams flow across the network, the sniffer captures each packet and, if needed, decodes the packet's raw data, showing the values of various fields in the packet, and analyzes its content.

QUESTION NO: 673

Which of the following can a network technician change to help limit war driving?

- A. Signal strength
- B. SSID
- C. Frequency
- D. Channel

Answer: A

Explanation: War driving is a term used to describe the process of a hacker who, armed with a laptop and a wireless adapter card and traveling via a car, bus, subway train, or other form of mechanized transport, goes around sniffing for WLANs. Over time, the hacker builds up a database comprising the network name, signal strength, location, and ip/namespace in use..

QUESTION NO: 674

Which of the following ports would have to be allowed through a firewall for POP3 traffic to pass on its default port?

- A. 110
- B. 123
- C. 143
- D. 443

Answer: A

Explanation:

Post Office Protocol (POP) is an application-layer Internet standard protocol used by local e-mail clients to retrieve e-mail from a remote server over a TCP/IP connection. POP3 server listens on well-known port 110.

QUESTION NO: 675

Which of the following monitoring devices are used only to recognize suspicious traffic from specific software?

- A. Signature based IPS
- B. Application based IDS
- C. Anomaly based IDS

D. Application based IPS

Answer: B

Explanation:

An APIDS monitors the dynamic behavior and state of the protocol and will typically consist of a system or agent that would typically sit between a process, or group of servers, monitoring and analyzing the application protocol between two connected devices.

QUESTION NO: 676

Which of the following security appliances are used to only identify traffic on individual systems?

- A. Host based IPS
- B. Application based IPS
- C. Network based IDS
- D. Host based IDS

Answer: D

Explanation:

A host-based intrusion detection system (HIDS) is an intrusion detection system that monitors and analyzes the internals of a computing system as well as the network packets on its network interfaces.

QUESTION NO: 677

Which of the following uses SSL encryption?

- A. SMTP
- B. FTP
- C. HTTPS
- D. SNMP

Answer: C

Explanation:

HTTPS is the result of simply layering the Hypertext Transfer Protocol (HTTP) on top of the SSL/TLS protocol, thus adding the security capabilities of SSL/TLS to standard HTTP communications.

QUESTION NO: 678

Management has decided that they want a high level of security. They do not want Internet requests coming directly from users. Which of the following is the BEST recommendation?

- A. Content filter
- B. Proxy server
- C. Layer 3 switch
- D. Firewall

Answer: B

Explanation: A proxy server is a server (a computer system or an application) that acts as an intermediary for requests from clients seeking resources from other servers.

QUESTION NO: 679

A company wants to secure its WAPs from unauthorized access. Which of the following is the MOST secure wireless encryption method?

- A. SSID disable
- B. SNMPv3
- C. WEP
- D. WPA2

Answer: D

Explanation:

WPA2 improves security of Wi-Fi connections by not allowing use of an algorithm called TKIP (Temporal Key Integrity Protocol) that has known security holes (limitations) in the original WPA implementation.

QUESTION NO: 680

A customer wants to increase firewall security. Which of the following are common reasons for implementing port security on the firewall? (Select TWO).

- A. Preventing dictionary attacks on user passwords
- B. Reducing spam from outside email sources
- C. Shielding servers from attacks on internal services
- D. Blocking external probes for vulnerabilities
- E. Directing DNS queries to the primary server

Answer: C,D

Explanation:

Port security is required because if we keep the ports unsecure then hackers can do port scanning and can compromise the internal secured network so we will have to shield servers to avoid attacks from outside and we need to block incoming scanning request coming from outside.

QUESTION NO: 681

The security measure used to reduce vulnerabilities for MOST network devices that require regular application and monitoring is:

- A. patch management
- B. security limitations
- C. documentation
- D. social engineering

Answer: A

Explanation:

A patch is a piece of software designed to fix security vulnerabilities and other bugs, and improving the usability or performance.

QUESTION NO: 682

Which of the following appliances creates and manages a large number of secure remote-access sessions, and also provides a high availability solution?

- A. Media converter
- B. Proxy server
- C. VPN concentrator
- D. Load balancer

Answer: C

Explanation:

The VPN Concentrator is used for Remote Access VPN's that allows users to use an encrypted tunnel to securely access a corporate or other network via the Internet.

QUESTION NO: 683

Which of the following network access security methods ensures communication occurs over a secured, encrypted channel, even if the data uses the Internet?

- A. MAC filtering
- B. RAS
- C. SSL VPN
- D. L2TP

Answer: C

Explanation: SSL VPN consists of one or more VPN devices to which the user connects by using his Web browser. The traffic between the Web browser and the SSL VPN device is encrypted with the SSL protocol or its successor, the Transport Layer Security (TLS) protocol.

QUESTION NO: 684

A network administrator is responding to a statement of direction made by senior management to implement network protection that will inspect packets as they enter the network. Which of the following technologies would be used?

- A. Packet sniffer
- B. Stateless firewall
- C. Packet filter
- D. Stateful firewall

Answer: D

Explanation: Stateful firewall keeps track of the state of network connections (such as TCP streams, UDP communication) traveling across it. The firewall is programmed to distinguish legitimate packets for different types of connections. Only packets matching a known active connection will be allowed by the firewall; others will be rejected.

QUESTION NO: 685

A network administrator is looking to implement a solution allowing users to utilize a common password to access most network resources for an organization. Which of the following would BEST provide this functionality?

- A. RADIUS
- B. Single sign on
- C. Multifactor authentication
- D. Two-factor authentication

Answer: B

Explanation: Single sign-on (SSO) is a session/user authentication process that permits a user to enter one name and password in order to access multiple applications. The process authenticates the user for all the applications they have been given rights to and eliminates further prompts when they switch applications during a particular session.

QUESTION NO: 686

A strong network firewall would likely support which of the following security features for controlling access? (Select TWO).

- A. War driving
- B. War chalking
- C. MAC filtering
- D. FTP bouncing
- E. Port filtering

Answer: C,E

Explanation:

MAC filtering set the security level at layer 2 and port filtering will set the security level on layer 4 so by filtering the traffic on both layers our network will get secure.

QUESTION NO: 687

A small office has created an annex in an adjacent office space just 20 feet (6 meters) away. A network administrator is assigned to provide connectivity between the existing office and the new office. Which of the following solutions provides the MOST security from third party tampering?

- A. CAT5e connection between offices via the patch panel located in building's communication closet.
- B. CAT5e cable run through ceiling in the public space between offices.
- C. VPN between routers located in each office space.
- D. A WEP encrypted wireless bridge with directional antennae between offices.

Answer: C

Explanation:

A VPN connection across the Internet is similar to a wide area network (WAN) link between the sites. From a user perspective, the extended network resources are accessed in the same way as resources available from the private network.

QUESTION NO: 688

Users at a remote site are unable to establish a VPN to the main office. At which of the following layers of the OSI model does the problem MOST likely reside?

- A. Presentation
- B. Application
- C. Physical
- D. Session

Answer: D

Explanation:

QUESTION NO: 689

A network technician is concerned that an attacker is attempting to penetrate the network, and wants to set a rule on the firewall to prevent the attacker from learning which IP addresses are valid on the network. Which of the following protocols needs to be denied?

- A. TCP
- B. SMTP
- C. ICMP
- D. ARP

Answer: C

Explanation:

The Internet Control Message Protocol (ICMP) is one of the core protocols of the Internet Protocol Suite. It is used by network devices, like routers, to send error messages indicating, for example, that a requested service is not available or that a host or router could not be reached. ICMP can also be used to relay query messages. It is assigned protocol number 1.

QUESTION NO: 690

A network technician has configured a new firewall with a rule to deny UDP traffic. Users have reported that they are unable to access Internet websites. The technician verifies this using the IP address of a popular website. Which of the following is the MOST likely cause of the error?

- A. Implicit deny
- B. HTTP transports over UDP
- C. Website is down
- D. DNS server failure

Answer: A

Explanation:

In a network firewall ruleset if a certain type of traffic isn't identified it will be denied or stopped by Implicit Deny.

QUESTION NO: 691

Which of the following describes a single computer that is setup specifically to lure hackers into revealing their methods, and preventing real attacks on the production network?

- A. Evil twin
- B. Honeypot
- C. DMZ
- D. Honey net

Answer: B

Explanation:

In computer terminology, a honeypot is a trap set to detect, deflect, or in some manner counteract attempts at unauthorized use of information systems.

QUESTION NO: 692

Which of the following network appliances will only detect and not prevent malicious network activity?

- A. IDS
- B. Network sniffer
- C. IPS
- D. Firewall

Answer: A

Explanation:

An intrusion detection system (IDS) is a device or software application that monitors network or system activities for malicious activities or policy violations and produces reports to a management station. Some systems may attempt to stop an intrusion attempt but this is neither required nor expected of a monitoring system.

QUESTION NO: 693

A network administrator is implementing a wireless honeypot to detect wireless breach attempts. The honeypot must implement weak encryption to lure malicious users into easily breaking into the network. Which of the following should the network administrator implement on the WAP?

- A. WPA
- B. WPA2
- C. WEP
- D. VPN

Answer: C

Explanation:

Wired Equivalent Privacy (WEP) is a security algorithm for IEEE 802.11 wireless networks. Introduced as part of the original 802.11 standard ratified in September 1999, its intention was to provide data confidentiality comparable to that of a traditional wired network. WEP, recognizable by the key of 10 or 26 hexadecimal digits, is widely in use and is often the first security choice presented to users by router configuration tools

QUESTION NO: 694

Joe, a technician, suspects a virus has infected the network and is using up bandwidth. He needs to quickly determine which workstation is infected with the virus. Which of the following would BEST help Joe?

- A. Web server
- B. Syslog
- C. Network sniffer
- D. SNMP

Answer: C

Explanation:

Network sniffer is a tool to analyze packets that are being exchanged between the hosts and using this Joe can understand whether there was traffic encountered to server or not which was infected.

QUESTION NO: 695

Users are reporting that external web pages load slowly. The network administrator determines that the Internet connection is saturated. Which of the following is BEST used to decrease the impact of web surfing?

- A. Caching
- B. Load balancing
- C. Port filtering
- D. Traffic analyzer

Answer: A

Explanation:

In computer science, a cache is a component that transparently stores data so that future requests for that data can be served faster. The data that is stored within a cache might be values that have been computed earlier or duplicates of original values that are stored elsewhere. If requested data is contained in the cache (cache hit), this request can be served by simply reading the cache, which is comparatively faster.

QUESTION NO: 696

Which of the following would be the BEST solution for an IDS to monitor known attacks?

- A. Host-based

- B. Signature-based
- C. Network-based
- D. Behavior-based

Answer: B

Explanation:

Signature detection involves searching network traffic for a series of bytes or packet sequences known to be malicious. A key advantage of this detection method is that signatures are easy to develop and understand if you know what network behavior you're trying to identify.

QUESTION NO: 697

Which of the following is a specialized piece of hardware designed to encrypt and decrypt user traffic?

- A. Proxy server
- B. TDR
- C. Smart jack
- D. VPN concentrator

Answer: D

Explanation:

The VPN Concentrator is used for Remote Access VPN's. In typical use, a Remote Access VPN allows users to use an encrypted tunnel to securely access a corporate or other network via the Internet.

QUESTION NO: 698

Which of the following wireless security measures, although widely implemented, does not provide strong security?

- A. IPSec
- B. WPA2
- C. MAC address filtering
- D. 802.1x

Answer: C

Explanation:

By MAC address filtering you can only filter layer 2 traffic but in security system layer 4 and layer 4

security is also essential.

QUESTION NO: 699

Which of the following does Kerberos provide?

- A. Non-repudiation
- B. Accounting
- C. Exchange
- D. Authentication

Answer: D

Explanation:

Kerberos is a trusted third-party authentication service based on the model presented by Needham and Schroeder. It is trusted in the sense that each of its clients believes Kerberos' judgment as to the identity of each of its other clients to be accurate.

QUESTION NO: 700

Which of the following does Kerberos use to authenticate?

- A. Tickets
- B. Servers
- C. Users
- D. Clients

Answer: A

Explanation:

Kerberos keeps a database of its clients and their private keys. The private key is a large number known only to Kerberos and the client it belongs to. In the case that the client is a user, it is an encrypted password. Network services requiring authentication register with Kerberos, as do clients wishing to use those services. The private keys are negotiated at registration.

QUESTION NO: 701

Which of the following security methods is used to attract users attempting to gain unauthorized access to various systems within a single network?

- A. Network based IDS
- B. Firewall
- C. Network based IPS
- D. Honeynet

Answer: D

Explanation:

A network-based intrusion prevention system (NIPS) is a system used to monitor a network as well as protect the confidentiality, integrity, and availability of a network. Its main functions include protecting the network from threats, such as denial of service (DoS) and unauthorized usage.

QUESTION NO: 702

An administrator needs to open ports in the firewall to support both major FTP transfer modes. Which of the following default ports was MOST likely opened? (Select TWO)

- A. 20
- B. 21
- C. 22
- D. 23
- E. 25
- F. 53

Answer: A,B

Explanation:

FTP use both port 21 and 20 (port 21 for the command port and port 20 for the data).

QUESTION NO: 703

The network administrator has been tasked to create a network segment where resources can be placed for public web access.

Which of the following should be implemented?

- A. DMZ

- B. Honeynet
- C. PAT
- D. Port security

Answer: A

Explanation:

In computer security, a DMZ is a physical or logical subnetwork that contains and exposes an organization's external-facing services to a larger and untrusted network, usually the Internet.

QUESTION NO: 704

A network administrator has been tasked to deploy a new WAP in the lobby where there is no power outlet. Which of the following options would allow the network administrator to ensure the WAP is deployed correctly?

- A. QoS
- B. Install 802.11n WAP
- C. PoE
- D. Parabolic antenna

Answer: C

Explanation:

Power over Ethernet or PoE describes any of several standardized or ad-hoc systems which pass electrical power along with data on Ethernet cabling. This allows a single cable to provide both data connection and electrical power to devices such as wireless access points or IP cameras.

QUESTION NO: 705

Honeypots and honeynets are different in which of the following ways?

- A. Honeynets are managed collections of honeypots.
- B. Honeypots only test software security, not hardware.
- C. Honeynets require specialized hardware to implement.
- D. Honeypots are usually servers and honeynets are routers and switches.

Answer: A

Explanation:

A honeynet is a network set up with intentional vulnerabilities; its purpose is to invite attack, so that

an attacker's activities and methods can be studied and that information used to increase network security. A honeynet contains one or more honey pots, which are computer systems on the Internet expressly set up to attract and "trap" people who attempt to penetrate other people's computer systems.

QUESTION NO: 706

A corporate office recently had a security audit and the IT manager has decided to implement very strict security standards. The following requirements are now in place for each employee logging into the network:

Biometric fingerprint scan

Complex 12 character password

5 digit pin code authorization

Randomized security question prompt upon login

Which of the following security setups does this company employ?

- A. Single factor authentication
- B. Three factor authentication
- C. Two factor authentication
- D. Single sign-on

Answer: C

Explanation: According to proponents, two-factor authentication could drastically reduce the incidence of online identity theft, phishing expeditions, and other online fraud, because the victim's password would no longer be enough to give a thief access to their information.

QUESTION NO: 707

Which of the following will BEST block a host from accessing the LAN on a network using static IP addresses?

- A. IP filtering
- B. Port filtering

- C. MAC address filtering
- D. DHCP lease

Answer: A

Explanation:

IPFilter (commonly referred to as ipf) is an open source software package that provides firewall services and network address translation (NAT) for many UNIX-like operating systems. The author and software maintainer is Darren Reed. IPFilter supports both IPv4 and IPv6 protocols, and is a stateful firewall.

QUESTION NO: 708

Which of the following remote access types requires a certificate for connectivity?

- A. SSH
- B. PPP
- C. HTTPS
- D. WEP

Answer: A

Explanation:

Secure Shell (SSH) is a cryptographic network protocol for secure data communication, remote command-line login, remote command execution, and other secure network services between two networked computers that connects, via a secure channel over an insecure network, a server and a client (running SSH server and SSH client programs, respectively)

QUESTION NO: 709

A technician is troubleshooting authentication issues on a server. It turns out the clock on the server was 72 minutes behind. Setting the clock to the correct time fixed the issue. Given the scenario, which of the following authentication methods was being used?

- A. Kerberos
- B. CHAP
- C. TACACS+
- D. RADIUS

Answer: A

Explanation:

Kerberos is a distributed authentication service that allows a process (a client) running on behalf of a principal (a user) to prove its identity to a verifier (an application server, or just server) without sending data across the network that might allow an attacker or the verifier to subsequently impersonate the principal. Kerberos optionally provides integrity and confidentiality for data sent between the client and server.

QUESTION NO: 710

Which of the following wireless standards uses a block encryption cipher rather than a stream cipher?

- A. WPA2-CCMP
- B. WPA
- C. WEP
- D. WPA2-TKIP

Answer: A

Explanation:

Counter Cipher Mode with Block Chaining Message Authentication Code Protocol or CCMP (CCM mode Protocol) is an encryption protocol designed for Wireless LAN products that implement the standards of the IEEE 802.11i amendment to the original IEEE 802.11 standard. CCMP is an enhanced data cryptographic encapsulation mechanism designed for data confidentiality and based upon the Counter Mode with CBC-MAC (CCM) of the AES standard. It was created to address the vulnerabilities presented by WEP, a dated, insecure protocol.

QUESTION NO: 711

A network administrator is performing a penetration test on the WPA2 wireless network. Which of the following can be used to find the key?

- A. DoS
- B. Buffer overflow
- C. Dictionary file
- D. SQL injection

Answer: C

Explanation:

A file used by the debugger. It contains information about a program's structure and contents. The

Compiler creates the dictionary file in the first phase of compilation, when checking the syntax. A dictionary file has the filename extension **.idy**, and is often referred to an **.idy** file.

QUESTION NO: 712

Which of the following can be used to compromise a WPA encrypted wireless network when the rainbow table does not contain the key?

- A. Evil twin
- B. War chalking
- C. Buffer overflow
- D. Virus

Answer: A

Explanation:

An evil twin is the wireless version of the phishing scam. An attacker fools wireless users into connecting a laptop or mobile phone to a tainted hotspot by posing as a legitimate provider. This type of evil twin attack may be used to steal the passwords of unsuspecting users by either snooping the communication link or by phishing, which involves setting up a fraudulent web site and luring people there.

QUESTION NO: 713

A system administrator is implementing an IDS on the database server to see who is trying to access the server. The administrator relies on the software provider for what to detect. Which of the following would MOST likely be installed?

- A. Behavior based IDS
- B. Network based IDS
- C. Signature based IDS
- D. Honeypot

Answer: C

Explanation:

Signature detection involves searching network traffic for a series of bytes or packet sequences known to be malicious. A key advantage of this detection method is that signatures are easy to develop and understand if you know what network behavior you're trying to identify.

QUESTION NO: 714

A vendor releases an emergency patch that fixes an exploit on their network devices. The network administrator needs to quickly identify the scope of the impact to the network. Which of the following should have been implemented?

- A. Change management
- B. Asset management
- C. Network sniffer
- D. System logs

Answer: B

Explanation:

Asset management is defined as the business practice of managing and optimizing the purchase, deployment, maintenance, utilization, and disposal of hardware and software applications within an organization.

QUESTION NO: 715

Which of the following can be described as a DoS attack?

- A. Disabling a specific system and making it unavailable to users
- B. Implementing a keylogger
- C. Intercepting a packet and decrypting the contents
- D. Communicating with employees to get company information

Answer: A

Explanation:

A denial of service (DoS) attack is a malicious attempt to make a server or a network resource unavailable to users, usually by temporarily interrupting or suspending the services of a host connected to the Internet.

QUESTION NO: 716

A user is connecting to the Internet at an airport through an ad-hoc connection. Which of the

following is the MOST likely security threat?

- A. Man-in-the-middle
- B. Social engineering
- C. Phishing
- D. DoS

Answer: A

Explanation:

A man in the middle attack is one in which the attacker intercepts messages in a public key exchange and then retransmits them, substituting his own public key for the requested one, so that the two original parties still appear to be communicating with each other.

QUESTION NO: 717

An application server is placed on the network and the intended application is not working correctly. Which of the following could be used to make sure sessions are being opened properly?

- A. Antivirus scanner
- B. IDS
- C. Packet sniffer
- D. Toner probe

Answer: C

Explanation:

Explanation: Packet Sniffer is a tool that can help you locate network problems by allowing you to capture and view the packet level data on your network. So we can capture the session and find the cause of failure.

QUESTION NO: 718

Which of the following is the MOST secure way to prevent malicious changes to a firewall?

- A. SNMPv2 access only
- B. TELNET access only
- C. SSH access only
- D. Console access only

Answer: D

Explanation: Console access requires physical access to the device, so this is the most secure

method.

QUESTION NO: 719

Which of the following allows a malicious attacker to view network traffic if the attacker is on the same network segment as Joe, an administrator?

- A. DoS attack
- B. Man-in-the-middle attack
- C. Smurf attack
- D. Xmas attack

Answer: B

Explanation:

An attack where a user gets between the sender and receiver of information and sniffs any information being sent. In some cases, users may be sending unencrypted data, which means the man-in-the-middle (MITM) can obtain any unencrypted information. In other cases, a user may be able to obtain information from the attack, but have to unencrypt the information before it can be read.

QUESTION NO: 720

An administrator determines there are an excessive number of packets being sent to a web server repeatedly by a small number of external IP addresses. This is an example of which of the following attacks?

- A. DDoS
- B. Viruses
- C. Worms
- D. Man-in-the-middle

Answer: A

Explanation:

DDoS attack, a type of attack on a network that is designed to bring the network to its knees by flooding it with useless traffic. Many DoS attacks, such as the Ping of Death and Teardrop attacks, exploit limitations in the TCP/IP protocols

QUESTION NO: 721

Which of the following features will a firewall MOST likely use to detect and prevent malicious traffic on the network?

- A. Zone filtering
- B. Signature identification
- C. Port identification
- D. Port scanner

Answer: B

Explanation:

Signature-based detection really is more along the lines of intrusion detection than firewalls. However, many personal firewalls and some corporate firewalls contain this functionality. Essentially, the system can be configured to look for specific patterns, known to be malicious, and block the traffic

QUESTION NO: 722

Stateful packet inspection is a security technology used by which of the following devices?

- A. Unmanaged switch
- B. Hardware firewall
- C. Bridge
- D. IDS

Answer: B

Explanation:

With Stateful Packet Inspection (SPI), every time a packet is sent out of the computer, the firewall keeps track of it. When a packet comes back to the firewall, the firewall can tell whether or not the in-bound packet is a reply to the packet that was sent out. This way, the firewall can handle most network traffic safely without a complex configuration of firewall rules.

QUESTION NO: 723

An administrator would like to inspect all traffic flowing over the SMTP protocol on a given network.

Which of the following tools would accomplish this? (Select TWO).

- A. Packet sniffer
- B. Honeypot
- C. Port mirroring
- D. IPS
- E. Port scanner
- F. IDS

Answer: A,C

Explanation:

(IPS), also known as intrusion detection and prevention systems (IDPS), are network security appliances that monitor network and/or system activities for malicious activity. The main functions of intrusion prevention systems are to identify malicious activity, log information about this activity, attempt to block/stop it, and report it.

And we use packet sniffer to detect the types of packet.

QUESTION NO: 724

PKI is a method of user authentication which uses which of the following?

- A. Various router commands
- B. Access control lists
- C. Certificate services
- D. A RADIUS server

Answer: C

Explanation:

A PKI (public key infrastructure) enables users of a basically unsecure public network such as the Internet to securely and privately exchange data and money through the use of a public and a private cryptographic key pair that is obtained and shared through a trusted authority. The public key infrastructure provides for a digital certificate that can identify an individual or an organization and directory services that can store and, when necessary, revoke the certificates. Although the components of a PKI are generally

QUESTION NO: 725

Which of the following a network technician would use to reverse engineer malware and virus?

- A. IDS
- B. VLAN
- C. Virtual Machine
- D. Switch

Answer: C

Explanation: Virtual Machine --- even if the VM gets infected, host machine will run as normal.

QUESTION NO: 726

Which of the following authentication solutions use tickets that include valid credentials to access additional network resources?

- A. Kerberos
- B. RADIUS
- C. Multi-factor authentication
- D. TACACS+

Answer: A

Explanation:

QUESTION NO: 727

Which of the following protocols is used to provide secure authentication and encryption over non-secure networks?

- A. RADIUS
- B. TLS
- C. PPTP
- D. HTTP

Answer: B

Explanation:

QUESTION NO: 728

Which of the following would be used in a firewall to block incoming TCP packets that are not from established connections?

- A. Access control lists
- B. Port address translation
- C. Blocking unauthorized ports
- D. Stateful inspection

Answer: D

Explanation:

QUESTION NO: 729

Which of the following would be used to place extranet servers in a separate subnet for security purposes?

- A. VPN
- B. NAT
- C. DMZ
- D. IDS

Answer: C

Explanation:

QUESTION NO: 730

Which of the following would a network administrator use to scan a network for vulnerabilities?

- A. ICMP
- B. NMAP
- C. ACL
- D. TCPDUMP

Answer: B

Explanation:

QUESTION NO: 731

Which of the following attack types is being used if the originating IP address has been spoofed?

- A. Ping flood
- B. Trojan
- C. Smurf
- D. Worm

Answer: C

Explanation:

QUESTION NO: 732

Which of the following preventative measures would BEST secure a web server from being port scanned by attackers publicly?

- A. Content filter
- B. Proxy server
- C. ACL implicit allow
- D. Firewall

Answer: D

Explanation:

QUESTION NO: 733

Which of the following provides RSA encryption at the session layer?

- A. SSH
- B. ISAKMP
- C. SSL
- D. TLS

Answer: C

Explanation:

QUESTION NO: 734

Which of the following wireless router security measures provides access to a network by allowing only devices on an approved physical address list?

- A. Port filtering
- B. MAC filtering
- C. SSID masking
- D. Port forwarding

Answer: B

Explanation:

QUESTION NO: 735

Which of the following BEST describes a firewall that can be installed via Add/Remove programs on a Windows computer?

- A. Managed
- B. Software
- C. Hardware
- D. Wireless

Answer: B

Explanation:

QUESTION NO: 736

An administrator determines that an attack is taking place on the email server from a group of users on the same ISP. Which of the following is the BEST way to mitigate an attack on the network?

- A. Packet filtering
- B. Spam filtering
- C. MAC filtering
- D. CSU

Answer: A

Explanation:

QUESTION NO: 737

Users trying to access a website using HTTPS are being blocked by the firewall. Which of the following ports needs to be allowed?

- A. 80
- B. 143
- C. 443
- D. 3389

Answer: C

Explanation:

QUESTION NO: 738

Which of the following tools could attempt to detect operating system vulnerabilities?

- A. nslookup
- B. honeynet
- C. netstat
- D. nessus

Answer: D

Explanation:

QUESTION NO: 739

A network technician has a RADIUS server IP address that must be included as part of the security settings for a WAP. Which of the following encryption types should the technician select?

- A. WPA enterprise
- B. TKIP
- C. WPA2 CCMP
- D. WEP 128-bit

Answer: A

Explanation:

QUESTION NO: 740

A technician has configured a router to authenticate VPN users to an LDAP server on the network. In order to allow the authentication service, both UDP and TCP ports needed to be allowed on the router. Which of the following services was MOST likely used?

- A. Kerberos
- B. TACACS+
- C. RADIUS
- D. 802.1x

Answer: C

Explanation:

QUESTION NO: 741

An administrator configuring remote access opens ports 500/UDP and 10000/UDP on the firewall. Which of the following services are MOST likely being allowed? (Select TWO).

- A. SSL
- B. IPSec
- C. Kerberos
- D. RDP
- E. L2TP
- F. PPTP

Answer: B,E

Explanation:

QUESTION NO: 742

An administrator wants to restrict traffic to FTP sites regardless of which PC the request comes from. Which of the following would BEST accomplish this?

- A. An IP filtering ACL
- B. A MAC filtering ACL
- C. A port filtering ACL
- D. A class matching ACL

Answer: C

Explanation:

QUESTION NO: 743

Which of the following provides the STRONGEST security for a tunneled connection over the Internet?

- A. RDP
- B. SMTP
- C. RAS
- D. IPSec

Answer: D

Explanation:

QUESTION NO: 744

A network administrator has decided to tighten company security after a recent data breach. The new scheme calls for a strong 10 character password, a special 4 digit pin code, and a one-time use dynamic token that is accessed via a smartphone application. Which of the following is being implemented?

- A. Two-factor authentication
- B. Biometric security
- C. Multi-factor authentication
- D. Single factor authentication

Answer: A

Explanation:

QUESTION NO: 745

A technician needs to enter a username and password and have their fingerprint scanned to access a server. Which of following types of authentication is this an example of?

- A. Single sign-on
- B. Network access control
- C. PKI authentication

D. Two-factor authentication

Answer: D

Explanation:

QUESTION NO: 746

A technician enters a username and password once and can access multiple databases without being prompted to reenter their password. This is an example of which of the following?

- A. Two-factor authentication
- B. Network access control
- C. Multifactor authentication
- D. Single sign-on

Answer: D

Explanation:

QUESTION NO: 747

Which of the following protocols would the network administrator use to protect login credentials when accessing a router terminal session?

- A. SCP
- B. SNMPv3
- C. SSL
- D. SSH

Answer: D

Explanation:

QUESTION NO: 748

A user at a hotel sees two SSIDs; both are called "HotelWireless". After the PC connects to one of the APs, the user notices their browser homepage has been changed. Which of the following BEST describes this AP?

- A. Man-in-the-middle

- B. DDoS
- C. Evil twin
- D. War driving

Answer: C

Explanation:

QUESTION NO: 749

Which of the following assists a network administrator in reverse engineering malware and viruses?

- A. Virtual switches
- B. Virtual machines
- C. VLANs
- D. IDS

Answer: B

Explanation:

QUESTION NO: 750

A network administrator decides to secure their small network by allowing only specific MAC addresses to gain access to the network from specific switches. Which of the following is described by this example?

- A. Packet filtering
- B. Hardware firewalls
- C. Port security
- D. Stateful inspection

Answer: C

Explanation:

QUESTION NO: 751

Which of the following can use a third party back-end LDAP user database for authentication?

- A. ISAKMP
- B. TACACS+
- C. PKI
- D. CHAP

Answer: B

Explanation:

QUESTION NO: 752

A network administrator is implementing an IPS on VLAN 1 and wants the IPS to learn what to prevent on its own. Which of the following would MOST likely be installed?

- A. Honeynet
- B. Signature based IPS
- C. Behavior based IPS
- D. Host based IPS

Answer: C

Explanation:

QUESTION NO: 753

Which of the following firewall rules will block destination telnet traffic to any host with the source IP address 1.1.1.2/24?

- A. Deny any source host on source port 23 to destination any
- B. Deny any source network 1.1.1.0/24 to destination any on port 23
- C. Deny source host 1.1.12 on source port 23 to destination any
- D. Deny any source network 1.1.1.0/24 with source port 23 to destination any

Answer: B

Explanation:

QUESTION NO: 754

Which of the following configurations of a wireless network would be considered MOST secure?

- A. WEP using MAC Filtering
- B. WEP and hiding the SSID
- C. WPA2
- D. WPA TKIP and hiding the SSID

Answer: C

Explanation:

QUESTION NO: 755

Which of the following is used to determine whether or not a user's account is authorized to access a server remotely?

- A. VPN
- B. RDP
- C. LDAP
- D. Encryption

Answer: C

Explanation:

QUESTION NO: 756

Which of the following are authentication methods that can use AAA authentication? (Select TWO).

- A. Kerberos
- B. PKI
- C. TKIP/AES
- D. MS-CHAP
- E. RADIUS
- F. TACACS+

Answer: E,F

Explanation:

QUESTION NO: 757

Which of the following are considered AAA authentication methods? (Select TWO).

- A. Kerberos
- B. Radius
- C. MS-CHAP
- D. TACACS+
- E. 802.1X

Answer: B,D

Explanation:

QUESTION NO: 758

Which of the following protocols provides a secure connection between two networks?

- A. L2TP
- B. IPSec
- C. PPP
- D. PPTP

Answer: B

Explanation:

QUESTION NO: 759

When installing new WAPs in a small office, which of the following is the BEST way to physically mitigate the threats from war driving?

- A. Implement multiple wireless encryption techniques.
- B. Implement PoE on each WAP.
- C. Decrease signal strength.
- D. Increase signal strength.

Answer: C

Explanation:

QUESTION NO: 760

A company wants to simplify network authentication for their users. Which of the following would be used to implement wireless security with single sign-on?

- A. WPA2 enterprise
- B. WEP
- C. Stateful firewall
- D. PAT

Answer: A

Explanation:

QUESTION NO: 761

The company requires all users to authenticate to the network with a smart card, a pin number, and a fingerprint scan. Which of the following BEST describes the user authentication being used?

- A. Multi-factor authentication
- B. Two-factor authentication
- C. Biometrics
- D. Single sign-on

Answer: A

Explanation:

QUESTION NO: 762

Which of the following protocols can be implemented to provide encryption during transmission between email gateways?

- A. TLS
- B. PPTP
- C. SSH
- D. HTTPS

Answer: A

Explanation:

QUESTION NO: 763

Which of the following authentication methods is MOST secure?

- A. NTLM
- B. CHAP
- C. MS-CHAP
- D. Kerberos

Answer: D

Explanation:

QUESTION NO: 764

A user wants to send information and ensure that it was not modified during transmission. Which of the following should be implemented?

- A. MAC filtering
- B. Digital signatures
- C. MS-CHAP
- D. CHAP

Answer: B

Explanation:

QUESTION NO: 765

Which of the following VPN technologies uses IKE and ISAKMP for key exchange?

- A. SSL
- B. IPSec
- C. L2TP
- D. PPTP

Answer: B

Explanation:

QUESTION NO: 766

A user reports that they are unable to access a new server but are able to access all other network resources. Based on the following firewall rules and network information, which of the following ACL entries is the cause?

User's IP: 192.168.5.14

Server IP: 192.168.5.17

Firewall rules:

Permit 192.168.5.16/28 192.168.5.0/28

Permit 192.168.5.0/24 192.168.4.0/24

Permit 192.168.4.0/24 192.168.5.0/24

Deny 192.168.5.0/28 192.168.5.16/28

Deny 192.168.14.0/24 192.168.5.16/28

Deny 192.168.0.0/24 192.168.5.0/24

- A. Deny 192.168.0.0/24 192.168.5.0/24
- B. Deny 192.168.5.0/28 192.168.5.16/28
- C. Deny 192.168.14.0/24 192.168.5.16/28
- D. Implicit Deny rule

Answer: B

Explanation:

QUESTION NO: 767

A home user wishes to secure the wireless network using strong encryption, so they decide to use AES. Which of the following would be used as the encryption method?

- A. WEP
- B. CCMP
- C. TKIP
- D. CHAP

Answer: B

Explanation:

QUESTION NO: 768

Which of the following security protocols would BEST protect a connection to a remote email server and ensure full integrity of all transmitted email communication?

- A. TLS 1.2
- B. SNMPv3
- C. WPA2
- D. SMTP

Answer: A

Explanation:

QUESTION NO: 769

A network administrator is tasked with blocking unwanted spam which is being relayed by an internal email server. Which of the following is the FIRST step in preventing spam that is originating from bots on the network?

- A. Closing off port 25 on the firewall
- B. Closing off port 53 on the firewall
- C. Turning off the SMTP service on the email server
- D. Turning off the IMAP service on the email server

Answer: A

Explanation:

QUESTION NO: 770

A technician is asked to filter inbound and outbound traffic of a specific service on the network. Which of the following would BEST allow the technician to comply with the request?

- A. MAC filtering
- B. IP filtering
- C. Port filtering
- D. Content filtering

Answer: C

Explanation:

QUESTION NO: 771

A user enters a password into a logon box on a PC. The server and the PC then compare one-way hashes to validate the password. Which of the following methods uses this process?

- A. PKI
- B. Kerberos
- C. Single sign-on
- D. CHAP

Answer: D

Explanation:

QUESTION NO: 772

A user receives a phone call at home from someone claiming to be from their company's IT help desk. The help desk person wants to verify their username and password to ensure that the user's account has not been compromised. Which of the following attacks has just occurred?

- A. Evil twin
- B. Phishing
- C. Man-in-the-middle
- D. Social engineering

Answer: D

Explanation:

QUESTION NO: 773

Which of the following is being described when symbols are displayed on the side of the building and/or walking path, to identify open hot-spots?

- A. Social engineering
- B. War chalking
- C. WPA cracking
- D. Packet sniffing

Answer: B

Explanation:

QUESTION NO: 774

A company would like to use the enterprise RADIUS server to authenticate and identify their secure wireless users. Which of the following standards should the company use to facilitate this?

- A. Stateful inspection
- B. WEP
- C. WPA
- D. Open with EAP

Answer: C

Explanation:

QUESTION NO: 775

A network manager is interested in a device that watches for threats on a network but does not act on its own, and also does not put a strain on client systems. Which of the following would BEST meet these requirements?

- A. HIDS
- B. NIDS
- C. NIPS
- D. HIPS

Answer: B

Explanation:

QUESTION NO: 776

A small company is looking to install a wireless network to enable its relatively old fleet of laptops to have limited internet access internally. The technician on the project knows that the units do not support modern encryption standards. If backwards compatibility is the greatest concern, which of the following is the MOST appropriate wireless security type to choose?

- A. WEP
- B. WPS
- C. WPA
- D. WPA2

Answer: A

Explanation:

QUESTION NO: 777

A technician notices that guests have plugged their laptops into a network wall jack located in the conference room. Which of the following could the technician implement in order to ensure that ONLY employees are able to access network resources?

- A. Port mirroring
- B. VTP configuration
- C. MAC address filtering
- D. Traffic filtering

Answer: C

Explanation:

QUESTION NO: 778

Which of the following would allow a network administrator to implement a user authentication method that uses X.509 certificates?

- A. PKI
- B. Kerberos
- C. TACACS+
- D. RADIUS

Answer: A

Explanation:

QUESTION NO: 779

A network administrator is considering implementation of network access restrictions based upon layer two addressing information. Which of the following describes this method of network restrictions?

- A. MAC filtering
- B. Port filtering
- C. IP filtering
- D. ACL filtering

Answer: A

Explanation:

QUESTION NO: 780

Which of the following is the wireless encryption standard associated with WPA2?

- A. AES-CCMP
- B. EAP
- C. WEP
- D. 802.1x

Answer: A

Explanation:

QUESTION NO: 781

Which of the following is the default authentication method for a Windows client using PPP over a dialup connection?

- A. TACACS+
- B. WINS
- C. Kerberos
- D. MS-CHAP

Answer: D

Explanation:

QUESTION NO: 782

A server administrator, Ann, is deploying a server that she wants to mitigate intrusions from zero day exploits. Which of the following should be deployed?

- A. Behavior based IPS
- B. Signature based IDS
- C. Antivirus software
- D. Access Control Lists

Answer: A

Explanation:

QUESTION NO: 783

Which of the following should the last line of an ACL normally contain?

- A. Explicit allow
- B. Statically routed
- C. Random access
- D. Implicit deny

Answer: D

Explanation:

QUESTION NO: 784

Joe, a network technician, is implementing a wireless network and needs to support legacy devices. He has selected to use WPA mixed mode. WPA mixed mode is normally implemented with which of the following encryption factors? (Select TWO).

- A. SSH
- B. 3DES
- C. AES
- D. SSL
- E. TLS
- F. TKIP

Answer: C,F

Explanation:

QUESTION NO: 785

Which of the following is a common threat that collects Initialization Vectors to help speed up the algorithm for the attack?

- A. WEP cracking
- B. WPA cracking
- C. War driving
- D. Rogue access point

Answer: A

Explanation:

QUESTION NO: 786

A user authenticated to more than one website using their same credentials is an example of:

- A. Multifactor authentication
- B. User access control
- C. Two-factor authentication
- D. Single sign-on

Answer: D

Explanation:

QUESTION NO: 787

Ann, a user, connects to her company's secured wireless network in the conference room when attending meetings. While using the conference room this morning, Ann notices an unsecured wireless network with the same name is available. Ann connects her laptop to this network instead of to the secured one. Ann has fallen victim to which of the following threats?

- A. Rogue access point
- B. ARP poisoning
- C. Replay attack
- D. Evil twin

Answer: D

Explanation:

QUESTION NO: 788

Which of the following is an example of asymmetric encryption?

- A. PKI
- B. SHA1
- C. AES
- D. 3DES

Answer: A

Explanation:

QUESTION NO: 789

Which of the following describes blocking traffic based upon the Layer 3 sources address of the traffic?

- A. Port filtering
- B. IP filtering
- C. MAC filtering
- D. Application filtering

Answer: B

Explanation:

QUESTION NO: 790

The process of restricting internal web traffic to an employee-only website based upon Layer 3 addresses is known as which of the following?

- A. MAC filtering
- B. Traffic shaping
- C. Session filtering
- D. IP filtering

Answer: D

Explanation:

QUESTION NO: 791

Encryption provides which of the following to data being transferred across the network?

- A. Confidentiality
- B. Resistance to Jitter
- C. High Availability
- D. Data Integrity

Answer: A

Explanation:

QUESTION NO: 792

Which of the following network devices is meant to actively protect against network threats and can disable connections to stop malicious traffic if necessary?

- A. DMZ
- B. IPS**
- C. SSL VPN
- D. Layer 3 switch

Answer: B

Explanation:

QUESTION NO: 793

Which of the following attacks is spread by attaching themselves to files?

- A. Worms**
- B. Botnet
- C. DDoS
- D. FTP bounce

Answer: A

Explanation:

QUESTION NO: 794

A company has a remote access VPN and wants to ensure that if a username and password are compromised, the corporate network will remain secure. Which of the following will allow the company to achieve its security goal?

- A. Posture assessment**
- B. Kerberos
- C. TACACS+
- D. Two-factor authentication

Answer: D

Explanation:

QUESTION NO: 795

A malicious user connects to an open wireless network and is able to copy, reassemble and play back live VoIP data streams from wireless VoIP users. Which of the following attacks has the user performed?

- A. Man-in-the-middle
- B. Evil Twin
- C. Packet Sniffing
- D. IV attack

Answer: C

Explanation:

QUESTION NO: 796

A technician is tasked with adding an ACL to the host-based firewall of a PC. The ACL should allow the Development Server to only connect to the PC's HTTP server on the default port. Given the IP addresses below, which of the following ACLs would accomplish this goal?

Development Server: 192.168.1.100 PC: 192.168.3.3

- A. Source. 192.168.1.100; Source Port: Any; Destination: 192.168.3.3; Destination Port:80; Action: Permit
- B. Source. 192.168.1.100; Source Port:80; Destination: 192.168.3.3; Destination Port:80; Action: Permit
- C. Source. 192.168.3.3; Source Port:80; Destination: 192.168.1.100; Destination Port: Any; Action: Permit
- D. Source. 192.168.3.3; Source Port:80; Destination: 192.168.1.100; Destination Port:80; Action: Permit
- E. Source. 192.168.1.100; Source Port: Any; Destination: 192.168.3.3; Destination Port: Any; Action: Permit

Answer: A

Explanation:

QUESTION NO: 797

Many of the corporate users work from a coffee shop during their lunch breaks. The coffee shop only has an open wireless network. Which of the following should the administrator recommend to users to secure their wireless communications at the coffee shop?

- A. Enable the host-based firewall on each of the laptops
- B. Use a VPN after connecting to the coffee shop wireless
- C. Edit the SSID connection information and change 'open' to 'shared'
- D. Connect to the open SSID then switch on WPA2 encryption

Answer: B

Explanation:

QUESTION NO: 798

Malicious users have used multiple workstations to target a single server with the intent of preventing legitimate users from accessing the server. This server suffered which of the following types of attack?

- A. DDoS
- B. Trojan
- C. Cross-site scripting
- D. Man in the middle
- E. Replay attack

Answer: A

Explanation:

QUESTION NO: 799

A security appliance is blocking a DDoS attack on the network. Which of the following logs would be used to troubleshoot the traffic patterns trying to go across the network?

- A. IPS logs
- B. Application logs
- C. IDS logs
- D. History logs

Answer: A

Explanation:

QUESTION NO: 800

A network administrator wants to add the firewall rule to allow SSH traffic to the FTP server with the assigned IP 192.168.0.15 from the Internet. Which of the following is the correct firewall rule?

- A. Allow ANY to 192.168.0.15 port 21
- B. Allow ANY to 192.168.0.15 port 22
- C. Allow ANY to 192.168.0.15 port 80
- D. Allow ANY to ANY port ANY

Answer: B

Explanation:

QUESTION NO: 801

Which of the following should be mitigated by employing proper coding techniques when developing software?

- A. Distributed denial of service attacks
- B. Buffer overflows
- C. War driving
- D. Packet sniffing

Answer: B

Explanation:

QUESTION NO: 802

A company is experiencing a denial of service attack and wants to identify the source IP address of the attacker in real time. Which method is the BEST way to accomplish this?

- A. Network sniffer
- B. Syslog
- C. SNMPv3
- D. System logs

Answer: A

Explanation:

QUESTION NO: 803

A company needs to implement a secure wireless system that would require employees to authenticate to the wireless network with their domain username and password. Which of the following would a network administrator deploy to implement these requirements? (Select TWO).

- A. 802.1q
- B. MAC address filtering
- C. WPA2 Personal
- D. WPA Enterprise
- E. 802.1x

Answer: D,E

Explanation:

QUESTION NO: 804

A network technician is doing a wireless audit and finds an SSID that does not match the company's SSID. The company uses the SSID of ABC123, and the SSID the technician found is Default. Which of the following threats did the network technician find?

- A. AP isolation
- B. DDoS
- C. Evil twin
- D. Rogue AP

Answer: D

Explanation:

QUESTION NO: 805

An administrator would like to search for network vulnerabilities on servers, routers, and embedded appliances. Which of the following tools would MOST likely accomplish this?

- A. Baseline analyzer

- B. Ping
- C. Protocol analyzer
- D. Nessus

Answer: D

Explanation:

QUESTION NO: 806

A technician needs to install a new wireless encryption system. They are evaluating the feasibility of implementing WPA. WPA increases protection over WEP by implementing which of the following?

- A. Strong RC4 encryption
- B. Shared secret keys
- C. AES encryption
- D. Key rotation

Answer: D

Explanation:

QUESTION NO: 807

A network administrator wants to perform a test to see if any systems are passing clear text through the network. Which of the following would be used?

- A. Social engineering
- B. Packet sniffing
- C. Rogue access point
- D. Man-in-the-middle

Answer: B

Explanation:

QUESTION NO: 808

A firewall that detects and prevents attacks from outside the network based on learned data patterns can BEST be described as which of the following?

- A. Signature based IDS
- B. Behavior based IPS
- C. Host based IPS
- D. Network based IDS

Answer: B

Explanation:

QUESTION NO: 809

A technician is troubleshooting a network issue and needs to view network traffic on a switch in real-time. Which of the following would allow the technician to view network traffic on a switch?

- A. ISAKMP
- B. Port forwarding
- C. Port security
- D. Port mirroring

Answer: D

Explanation:

QUESTION NO: 810

A technician needs to make a web server with a private IP address reachable from the Internet. Which of the following should the technician implement on the company firewall?

- A. DOCSIS
- B. NAT
- C. CIDR
- D. VPN

Answer: B

Explanation:

QUESTION NO: 811

A user is unable to connect to a remote computer using RDP. The technician checks the firewall rules and notes that there is no rule that blocks RDP. Which of the following features of the firewall is responsible for blocking RDP?

- A. Stateful inspection
- B. NAT/PAT
- C. Port security
- D. Implicit deny

Answer: D

Explanation:

QUESTION NO: 812

A company wants to have a security zone to isolate traffic within the firewall. Which of the following could be used?

- A. VPN
- B. ACL
- C. DMZ
- D. VLAN

Answer: C

Explanation:

QUESTION NO: 813

An organization only has a single public IP address and needs to host a website for its customers. Which of the following services is required on the network firewall to ensure connectivity?

- A. Forwarding proxy
- B. Port address translation
- C. DMZ port security
- D. Application inspection

Answer: B

Explanation:

QUESTION NO: 814

A user reports sporadic network outages. The user tells the administrator it happens after approximately 20 minutes of work on an application. The administrator should begin troubleshooting by checking which of the following?

- A. The IDS server logs
- B. The DNS resolution time
- C. The firewall's blocked logs
- D. The patch cable

Answer: D

Explanation:

QUESTION NO: 815

If a wireless key gets compromised, which of the following would MOST likely prevent an unauthorized device from getting onto the network?

- A. Device placement
- B. Wireless standard
- C. Encryption type
- D. MAC filtering

Answer: D

Explanation:

QUESTION NO: 816

Which of the following would a network administrator MOST likely use to actively discover unsecure services running on a company's network?

- A. IDS
- B. Nessus
- C. NMAP
- D. Firewall

Answer: B

Explanation:

QUESTION NO: 817

A company has a total of two public IP addresses and must allow 150 devices to connect to the Internet at the same time. Which of the following is the BEST option for connectivity?

- A. VLSM
- B. NAT
- C. CIDR
- D. PAT

Answer: D

Explanation:

QUESTION NO: 818

A network technician has recently discovered rogue devices on their network and wishes to implement a security feature that will prevent this from occurring. Which of the following will prevent unauthorized devices from connecting to a network switch?

- A. Implement 802.11i on all switches in the network.
- B. Implement port security on all computers in the company.
- C. Implement port security on all switches in the network.
- D. Implement rules on the firewall to block unknown devices.

Answer: C

Explanation:

QUESTION NO: 819

Which of the following security appliances would be used to only analyze traffic and send alerts when predefined patterns of unauthorized traffic are detected on the network?

- A. Host based IPS
- B. Network based firewall
- C. Signature based IDS
- D. Behavior based IPS

Answer: C

Explanation:

QUESTION NO: 820

An administrator would like to provide outside access to the company web server and separate the traffic from the local network. Which of the following would the administrator use to accomplish

this?

- A. Network Address Translation
- B. Stateful Inspection
- C. Port Address Translation
- D. Demilitarized Zone

Answer: D

Explanation:

QUESTION NO: 821

An administrator needs to provide remote connectivity to server1, web traffic to server2, and FTP access to server3 using a single outside IP address. Which of the following would the administrator implement on the firewall to accomplish this?

- A. Port Address Translation
- B. Demilitarized Zone
- C. Stateful Packet Inspection
- D. Network Address Translation

Answer: A

Explanation:

QUESTION NO: 822

An administrator would like to scan for open ports on the subnet and determine if any vulnerable applications are listening. Which of the following tools would the administrator MOST likely use?

- A. Ping
- B. Nessus
- C. IMAP
- D. Telnet

Answer: B

Explanation:

QUESTION NO: 823

An attack used to find unencrypted information in network traffic is called:

- A. WEP cracking
- B. packet sniffing
- C. ping sweep
- D. social engineering

Answer: B

Explanation:

QUESTION NO: 824

An administrator would like to block all HTTP traffic and allow all HTTPS traffic on the firewall. Using the default port numbers, which of the following should the administrator configure? (Select TWO).

- A. Allow port 443
- B. Deny port 53
- C. Deny port 20
- D. Deny port 80
- E. Allow port 23

Answer: A,D

Explanation:

QUESTION NO: 825

Which of the following protocols would be MOST likely found to be running on a device in a SOHO environment?

- A. BGP
- B. SONET
- C. IPSec
- D. OSPF

Answer: C

Explanation:

QUESTION NO: 826

Which of the following tools will scan a network for hosts and provide information on the installed operating system?

- A. DOCSIS
- B. NMAP
- C. IMAP
- D. BERT

Answer: B

Explanation:

QUESTION NO: 827

A network technician is configuring a new firewall for placement into an existing network infrastructure. The existing network is connected to the Internet by a broadband connection. Which of the following represents the BEST location for the new firewall?

- A. The firewall should be placed between the Internet connection and the local network.
- B. The firewall should be placed inside the local network.
- C. The firewall should be placed between the broadband connection and the Internet.
- D. The firewall should be placed in the Internet cloud.

Answer: A

Explanation:

QUESTION NO: 828

A company would like their technicians to be able to connect to employee desktops remotely via RDP. Which of the following default port numbers need to be opened on the firewall to support this?

- A. 143
- B. 443
- C. 3389
- D. 8080

Answer: C

Explanation:

