Exam : 350-018

Title : CCIE Pre-Qualification Test for Security

Ver : 04.25.05

QUESTION 1
Network topology exhibit:

Host Certkiller A and Host Certkiller B are on Ethernet LANs in different buildings. A serial line is installed between two Cisco routers using Cisco HDLC serial line encapsulation. Routers Certkiller 1 and Certkiller 2 are configured to route IP traffic. Host Certkiller A sends a packet to Host Certkiller B. A line hit on the serial line cause an error in the packet. When this is detected, the retransmission is sent by:

A. Host Certkiller A
B. Host Certkiller B
C. Router Certkiller 1
D. Router Certkiller 2
E. Protocol analyzer

Answer: A

QUESTION 2
The BGP backdoor command:

A. Changes the distance of an iBGP route to 20
B. Changes the distance of an eBGP route to 200
C. Changes the distance of an IGP route to 200
D. Changes the distance of an IGP route to 20
E. Does not change the distance of the route

Answer: B
The BGP backdoor command is used when you want a subnet that is learned via an IGP and EBGP to be inserted in the routing table using the IGP as the preferred route. By default, the EBGP route would be inserted as EBGP has a lower administrative distance than any of the IGPs do. The network backdoor command has the same effect as the network command. The EBGP route is treated as a local BGP route, and the AD is changed to 200. The difference is that the address specified by the network backdoor command is not advertised to EBGP peers.

QUESTION 3
A POP3 client contacts the POP3 server:

A. To send mail
B. To receive mail
C. to send and receive mail
D. to get the address to send mail to

E. initiate a UDP SMTP connection to read mail

Answer: B
POP is used to receive e-mail.
SMTP is used to send e-mail.

QUESTION 4
What are the main drawbacks for anti-virus software?

A. AV software is difficult to keep up to the current revisions.
B. AV software can detect viruses but can take no action.
C. AV software is signature driven so new wxploits are not detected.
D. It's relatively easy for an attacker to change the anatomy of an attack to bypass AV systems
E. AV software isn't available on all major operating systems platforms.
F. AV software is very machine (hardware) dependent.

Answer: C

QUESTION 5
TACACS + and RADIUS authentication can be used on the same router if:

A. The tacacs extended command is used.
B. Multilink PPP is setup cottectly.
C. Different list names are used and applied to different interfaces.
D. The login tacacs command is used on some interfaces and the login radius command is used on the remaining interfaces.
E. The radius mulitsecurity command is used.

Answer: C

QUESTION 6
In network architecture, which components should be considered security devices?

A. Routers
B. Switches
C. Firewalls
D. Intrustion detection Applicances
E. VPN Concentrators
F. All of the above

Answer: F

QUESTION 7
What RADIUS AV pair is NOT vendor specific?

A. Icp:callback-dialstring=3179721407

B. Ip:callback-rotary=1
C. Icp:nocallback-verify=1
D. Farmed-Compression913)=(integer)

Answer: D
Vendor-Specific allows vendors to support their own extended attributes unsuitable for general use. The Cisco RADIUS implementation supports one vendor-specific option using the format recommended in the specification. Cisco's vendor-ID is 9, and the supported option has vendor-type 1, cisco-avpair. The value is a string of the format:
protocol:attribute sep value
Answer D does not match the format for a vendor specific AV pair

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QUESTION 8
The purpose of RADIUS "check items" is:

A. To define the attributes to be sent to the NAS
B. To define the attributes required for authentication
C. To provide an optional list of attributes that the NAS may choose to enforce or ignore
D. To define CRC values to aid in packet integrity cheeks
E. To flag interesting items for accounting purposes

Answer: B
Radius check items are attributes required for authentication, such as user ID and password.

QUESTION 9
What statement about RADIUS is true?

A. User can only be authorized if they have been authenticated first.
B. Users can only be authenticated if they have been authorized first.
C. Users can only be authenticated if they have been authorized first.
D. Accounting can only be run on users that have been authenticated./
E. Accounting can only be run on users that have been athorized.

Answer: A

QUESTION 10
In order to send vendor-specific information about callback from a RADIUS server to a Cisco router, a network administrator would use:

A. Check item 26, vendor code 9, lcp:callback-dialstring=3175551407
B. Check item 9, vendor code 26, lcp:callback-dialstring=3175551407
C. Check item 9, reply attribute 26, lcp:callback-dialstring=3175551407
D. Reply attribute 9, vendor code 26 lcp:callback-dialstring=3175551407
E. Reply attribute 26, vendor code 9, lcp:callback-dialstring=3175551407

Answer: E
Attribute 26 is used to specify a vendor-specific attribute. Cisco's vendor-ID is 9.

QUESTION 11
Which of the following statements regarding the RADIUS authentication protocol is valid? (Choose all that apply.)

A. UDP 1812 is specified in RFC 2138.
B. UDP 1645 is commonly used by many vendors.
C. UDP 1647 is specified in RFC 2139.
D. UDP 48 is commonly used by many vendors.

Answer: A, B

Explanation: Exactly one RADIUS packet is encapsulated in the UDP Data field [2], where the UDP Destination Port field indicates 1812 (decimal). When a reply is generated, the source and destination ports are reversed. This memo documents the RADIUS protocol. There has been some confusion in the assignment of port numbers for this protocol. The early deployment of RADIUS was done using the erroneously chosen port number 1645, which conflicts with the "datametrics" service. The officially assigned port number for RADIUS is 1812.

QUESTION 12
What is the function of the RADIUS attribute represented by the value 26?

A. It specifies accounting data specific to a particular vendor service.
B. It specifies the vendor name of the NAS.
C. It allows vendors to define out-of-band RADIUS timeouts.
D. It transmits vendor-specific attributes.

Answer: D

Explanation: Vendor-specific - allows vendors to support their own extended attributes that are unsuitable for general use. Cisco RADIUS implementation supports one vendor-specific option using the format recommended in the specification. Network Security Principles and Practices, Saadat Malik p 524

QUESTION 13
Which of the following statements regarding the DLCI field in the Frame Relay header is valid?

A. It consists of two portions, namely source and destination, which map data to a logical channel.
B. It usually only has significance between the local switch and the DTE device.
C. It is an optional field in the ITU-T specification.
D. It is only present in data frames that are sent through the network.

Answer: B

Explanation: DLCI is only locally signifigant

QUESTION 14
What information will be received from the ISP authentication server when a user dials into the ISP router of a VPDN network as 'dking@abc.xzy' and the router is using TACACS+ or RADIUS authentication and authorization?

A. The tunnel-id and IP address of the Home Gateway (HGW) router based on domain abc.xzy.
B. An access-accept or access-reject (if RADIUS) or a PASS or FAIL (if TACACS) for userid dking@abc.xzy.
C. The tunnel-id, IP address of the HGW router, and the IP address of outgoing ISP router interface based on domain abc.xzy.
D. The IP address of the HGW router and IP address of the outgoing ISP router interface based on domain abc.xzy.

Answer: B

Explanation: The user must be authenticated first before any thing can happen (like the downloading of Access-lists)

QUESTION 15
The newly appointed Certkiller trainee technician wants to know what are the only two part found in a RADIUS user profile. What will your reply be?

A. Reply attributes, check attributes
B. Check items, reply attributes
C. Check attributes, reply items
D. Reply items, check items

Answer: B

Explanation:
http://www.cisco.com/en/US/products/sw/secursw/ps4911/products_user_guide_chapter09186a008015c5bc.html
Step 7 Specify RADIUS-Cisco Check Item and Reply attributes:
a. Click the RADIUS-Cisco attribute icon in the Profile pane. This displays the RADIUS-Cisco Options menu in the Attributes pane.
b. Select Reply Attributes and Check Items in the Options menu and click Apply.

QUESTION 16
Which of the following is never included in a RADIUS Access-Accept response?

A. The type of service
B. An Access-Challenge
C. An IP Addres
D. The MTU
E. The user's encrypted password, using the shared secret key as an MD5 hash key.

Answer: E

QUESTION 17
The Certkiller network administrator was requested to design a dial-in solution that will allows both scripted login for dial in clients and pure PPP login for packet mode connections. The network administrator must configure the NAS to authenticate both types of users with RADIUS.
Assuming the lines and interfaces are configured correctly, which of the following represents the correct AAA authentication configuration?

A. aaa new-model
aaa authentication login default radius
aaa authentication ppp default-if-needed radius
B. aaa new-model
aaa authentication default radius
C. aaa new-model
aaa authentication slip default radius
aaa authentication ppp default radius
D. aaa new-model
aaa authentication radius default
E. aaa new-model
aaa authentication login default radius
aaa authentication ppp default radius

Answer: A

QUESTION 18
What are the reasons for the differences in convergence for Link State protocols and Distance Vector protocols in general? (Choose all that apply.)

A. Poison reverse updates are sent by link state protocols.
B. The Designated Router handles route calculation centrally and updates all routers.
C. Link state updates are sent to all routers through "flooding".
D. Periodical partial updates from all routers can be processed more quickly than regular full updates from neighbors.

Answer: B, D

QUESTION 19
With regard to the CERT/CC, which of the following isd true.

A. It is a clearinghouse for security and vulnerability information.
B. It maintains Secure Computing standards.
C. It provides Certificates of Authority services for the public.
D. It coordinates orchestrated attacks on political network targets.
E. It is in charge of issuing new TLAs for new technologies.

Answer: A

QUESTION 20
You are the network administraot at Certkiller . Certkiller has a CiscoSecure UNIX. Your newly appointed Certkiller trainee technician wants to know how RADIUS debugging turned on for the CiscoSecure UNIX.
What will your reply be?

A. Set the server value to debug in the advanced GUI, and modify the syslog.conf and CSU.cfg files.
B. Modify the syslogd.conf and CSU.cfg files.
C. Modify the CSU.cfg file.
D. Issue the debug radius command.
E. Issue the debug UNIX command.

Answer: A

QUESTION 21
Cisco's RADIUS implementation supports one vendor-specific option using which of the following formats?

A. Vendor-ID 26, and the supported option has vendor-type 1, which is named "cisco-avpair".
B. Vendor-ID 9, and the supported option has vendor-type 26, which is named "cisco-avpair".
C. Vendor-ID 9, and the supported option has vendor-type 1, which is named "cisco-avpair".
D. Vendor-ID 1, and the supported option has vendor-type 9, which is named "cisco-avpair".
E. Vendor-ID 1, and the supported option has vendor-type 9, which is named extened "cisco-avpair".
F. All of the above.

Answer: C

QUESTION 22
Why would you advice the new Certkiller trainee technician to configure a "clients" file on a RADIUS server?

A. To define a list of remote node devices that users may use for connectivity to the network.
B. To define a list of IP hosts that are granted permissions to administer the RADIUS database.
C. To define a list of users and their access profiles.
D. To define a list of NASs the RADIUS server for communcation purposes.
E. All of the above.

Answer: D

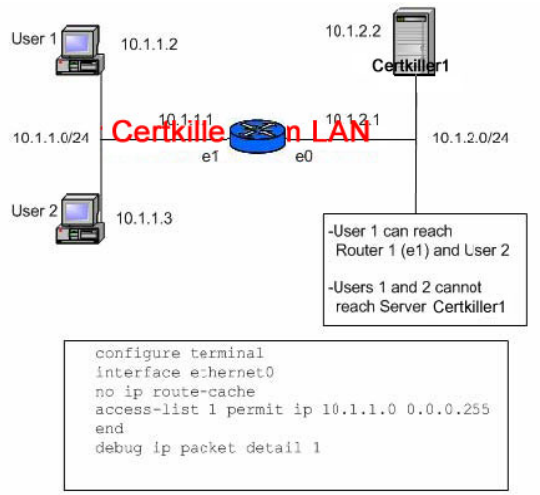
QUESTION 23
Exhibit:
CA Certificate
Status: Available

Certificate Serial Number: 68690A1A21B65B343679274B37E7BB
Key Usage: Signature
CN = Version CertServer
OU = user
O = user
L = User City
ST = CA
C = US
EA =<16> user@anyone.com
Validity Date:
start stae: 14.32.48 PST Mar 17 2000
end date: 14:41:28 PST Mar 17 2002
You are the network administrator at Certkiller . You are experiencing problems getting two IPSec routers to authenticate using RSA-sig as an authentication method. The output of the IOS command show crypto ca cert yields the above output.
What is the most probable reason for this authentication failure?

A. The certificate has a leading one in the serial number field which violated the x.509 certificate standard.
B. The router has not yet obtained an identity certificate from the root CA.
C. The current data of the router is out of the range of the certificate's validity date.
D. The root CA has rejected the other routers attempt to authenticate.
E. None of the above.

Answer: C
As the current date are out of the range of the validity date , the IPSec peers could not authenticate each other..

QUESTION 24
Exhibit:



The Certkiller Network Administrator can view user traffic reaching the router. However, the administrator also wants to see the return traffic from the server as well.
What other commands is necessary to be configured to enable viewing both the outgoing and return traffic, without overwhelming the router?

A. config t
int ethernet1
no ip route-cache
end
B. config t
int ethernet0
no ip route-cache
end
debug ip packet detail any 10.1.1.0 0.0.0.255
C. config t
int ethernet0
no ip route-cache
access-list 1 permit 10.1.1.0 255.255.255.0
end
debug ip packet detail 1
D. config t
int ethernet1
no ip route-cache
no access-list 1
access-list 101 permit ip 10.1.1.0 0.0.0.255 any
access-list 101 permit ip any 10.1.1.0 0.0.0.255
end
debug ip packet detail 101
E. config t
int ethernet1
no ip route-cache
access-list 101 permit ip 10.1.1.0 0.0.0.255 any
access-list 101 permit ip any 10.1.1.0 0.0.0.255
end
debug ip packet detail 101

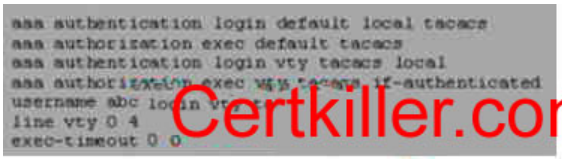
Answer: E

QUESTION 25
What would the Certkiller network administrator use in order to send vendor-specific information about callback from a RADIUS server to a Cisco router?

A. Check item 26, vendor code 9, lcp:callback-dialstring=3175551407
B. Check item 9, reply attribute 26, lcp:callback-dialstring=3175551407
C. Reply attribute 9, vendor code 26, lcp:callback-dialstring=3175551407
D. Check item 9, vendor code 26, lcp:callback-dialstring=3175551407
E. Reply attribute 26, vendor code 9, lcp:callback-dialstring=3175551407

Answer: E
Attribute 26 is used to specify a vendor-specific attribute. Cisco's vendor-ID is 9.

QUESTION 26
Exhibit:



If a route running IOS is configured as shown and the TACACS server is down, what will happen when someone telnets into the router?

A. Using the local username, the us4r will pass authentication but fail authorization.
B. The user will be able to gain access using the local username and password, since list vty will be checked.
C. Suing the local username, the user will bypass authentication and authorization since the server is down.
D. The user will receive a massage saying "The TACACS+ server is down, please try again later."

Answer: A
Not B: list "vty" is not applied on the vty lines.

QUESTION 27
What answer describes a network service that would be flagged as high risk and disabled by SDM?

A. SNMP
B. FTP
C. SSH
D. TELNET

Answer: A

QUESTION 28
Which statements about TACACS+ are true? (Select three)

A. If more than one TCACS+ server is configured and the first one does not respond within a given timeout period, the next TACACS+ server in the list will be contacted.
B. The TACACS+ server's connection to the NAS encrypts the entire packet, if a key is used at both ends.
C. The TACACS+ server must use TCP for its connection to the NAS.
D. The TACACS+ server must use UDP for its connection to the NAS.
E. The TACACS+ server may be configured to use TCP of UDP for its connection to the NAS<

Answer: A, B, C

QUESTION 29
What is the best explanation for the command aaa authentication ppp default if-needed tacacs+?

A. If authentication has been enabled on an interface, use TACACS+ to perform authentication.
B. It the user requests authentication, use TACACS+ to perform authentication.
C. If the user has already been authenticated by some other method, do not urn PPP authentication.

D. If the user is not configured to run PPP authentication, do not run PPP authentication.
E. If the user knows the enable password, do not run PPP authentication.

Answer: C
The if-needed option tells the router to perform the specified authentication only if the user has not been authenticated by another method.

QUESTION 30
Which of the following statements regarding TACACS+ is valid? (Choose all that apply.)

A. Whenever more than one TACACS+ server is configured and the first one does not respond within a given timeout period, the next TACACS+ server in the list will be contacted.
B. If a key is used at both ends, the TACACS+ server's connection to the NAS encrypts the entire packet.
C. UDP must be used by the TACACS+ server for its connection to the NAS.
D. TCP or UDP for the NAS connection must be configured on the TACACS+ server.
E. TCP must be used by the TACACS+ server for its connection to the NAS.

Answer: A, B, E

Explanation: PIX Firewall permits the following TCP literal names: bgp, chargen, cmd, daytime, discard, domain, echo, exec, finger, ftp, ftp-data, gopher, h323, hostname, http, ident, irc, klogin, kshell, lpd, nntp, pop2, pop3, pptp, rpc, smtp, sqlnet, sunrpc, TACACS, talk, telnet, time, uucp, whois, and www. To specify a TACACS host, use the tacacs-server host global configuration command. Use the no form of this command to delete the specified name or address. timeout= (Optional) Specify a timeout value. This overrides the global timeout value set with the tacacs-server timeout command for this server only. tacacs-server key
To set the authentication encryption key used for all TACACS+ communications between the access server and the TACACS+ daemon, use the tacacs-server key global configuration command. Use the no form of this command to disable the key. key = Key used to set authentication and encryption. This key must match the key used on the TACACS+ daemon.

QUESTION 31
In which way is data between a router and a TACACS+ server encrypted?

A. CHAP Challenge responses
B. DES encryption, if defined
C. MD5 has using secret matching keys
D. PGP with public keys

Answer: C

Explanation: "The hash used in TACACS+ is MD5"
CCIE Professional Development Network Security Principles and Practices by Saadat Malik pg 497

QUESTION 32
What is the function of gratuitous ARP? (Choose all that apply.)

A. ARP refreshes other devices' ARP caches after reboot.
B. ARP will look for duplicate IP addresses.
C. ARP refreshes the originating server's cache every 20 minutes.
D. ARP will identify stations without MAC addresses.
E. ARP will prevent proxy ARP from becoming promiscuous.

Answer: A, B

Explanation: NOT SURE ABOUT THIS

QUESTION 33
minutes. Could be answer but the test wants only 2
Gratuitous ARP [23] is an ARP packet sent by a node in order to spontaneously cause other nodes to update an entry in their ARP cache. A gratuitous ARP MAY use either an ARP Request or an ARP Reply packet. In either case, the ARP Sender Protocol Address and ARP Target Protocol Address are both set to the IP address of the cache entry to be updated, and the ARP Sender Hardware Address is set to the link-layer address to which this cache entry should be updated. When using an ARP Reply packet, the
Target Hardware Address is also set to the link-layer address to which this cache entry should be updated (this field is not used in an ARP Request packet).
Most hosts on a network will send out a Gratuitous ARP when they are
initialising their IP stack. This Gratuitous ARP is an ARP request for their
own IP address and is used to check for a duplicate IP address. If there is
a duplicate address then the stack does not complete initialisation.

QUESTION 34
To what does "message repudiation" refer to what concept in the realm of email security?

A. Message repudiation means a user can validate which mail server or servers a message was passed through.
B. Message repudiation means a user can claim damages for a mail message that damaged their reputation.
C. Message repudiation means a recipient can be sure that a message was sent from a particular person.
D. Message repudiation means a recipient can be sure that a message was sent from a certain host.
E. Message repudiation means a sender can claim they did not actually send a particular message.

Answer: E

Explanation: A quality that prevents a third party from being able to prove that a communication between two other parties ever took place. This is a desirable quality if you do not want your communications to be traceable. Non-repudiation is the opposite quality-a third party can prove that a communication between two other parties took place. Non-repudiation is desirable if you want to be able to trace your communications and prove that they occurred. Repudiation - Denial of message submission or delivery.

QUESTION 35
What is the finction of a RARP?

A. A RARP is sent to map a hostname to an IP address.

B. A RARP is sent to map an IP address to a hostname.
C. A RARP is sent to map an MAC address to an IP address.
D. A RARP is sent to map a MAC address to a hostname.
E. A RARP is sent to map and IP address to a MAC address.

Answer: C

Explanation: RARP is used to translate hardware interface addresses to protocol addresses

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QUESTION 36
What is the sequence number in the TACACS+ protocol? (Select two.)

A. It is an identical number contained in every packet.
B. The sequence number is a number that must start with 1 (for the fist packet in the session) and increment each time a request or response is sent.
C. The sequence number is always an odd number when sent by the client.
D. The sequence number is always an even number when sent by the client and odd when sent by the daemon.

Answer: B, C

Explanation: Seq_no - The sequence number of the current packet for the current session. The first TACACS+ packet is a session must have the sequence number 1, and each subsequent packet increments the sequence number by 1. Thus, clients (such as the NAS) send only packets containing odd sequence numbers, and TACACS+ daemons send only packets containing even sequence numbers. The sequence number mst never wrap. In other words, if the sequence number 2^8-1 is ever reached, that session must terminate and be restarted with a sequence number of 1. CCIE Professional Development Network Security Principles and Pratices by Saadat Malik pg 496

QUESTION 37
In the IPSec protocol suit, transport mode & tunnel mode describe:

A. AH header and datagram layouts
B. Diffie-Hellman keying
C. SHA security algorithm
D. ESP header and datagram layouts

Answer: A, D
The AH provides connectionless data integrity and data origin authentication of IP packets, but does not provide confidentiality through encryption. ESP does allow encryption but does not protect the new IP header, so for strong authentication plus confidentiality, AH and ESP can be deployed in tandem in either transport mode or tunnel mode.

QUESTION 38
Which methods can be used to encrypt all communication between a client and a Cisco router (Multiple answer):

A. RADIUS
B. Secure-shell
C. Kerberized telnet
D. TACACS+
E. XTACACS

Answer: B, C
Secure Shell is a program to log into another computer over a network, to execute commands in a remote machine, and to move files from one machine to another. It provides strong authentication and secure communications over unsecure channels.
Kerberos is a secret-key network authentication protocol, developed at the Massachusetts Institute of Technology (MIT), that uses the Data Encryption Standard (DES) cryptographic algorithm for encryption and authentication. Telnet is one of the network services supported by Kerberos.

QUESTION 39
In which of the following ways does a Hash (such as MD5) differs from an Encryption (such as DES)?

A. A hash is easier to break.
B. Encryption cannot be broken.
C. A hash, such as MD5, has a final fixed length.
D. A hash is reversible.
E. Encryption has a final fixed length.
F. None of the above.

Answer: C

Explanation: The MD5 algorithm takes as input a message of arbitrary length and produces as output a 128-bit "fingerprint" or "message digest" of the input. It is conjectured that it is computationally infeasible to produce two messages having the same message digest, or to produce any message having a given prespecified target message digest. The MD5 algorithm is intended for digital signature applications, where a large file must be "compressed" in a secure manner before being encrypted with a private (secret) key under a public-key cryptosystem such as RSA.
'Message hashing is an encryption technique that can be used to ensure that a message has not been altered. The MD5 algorithm takes as input a cleartext message of arbitrary length...The MD5 algorithm is run on the input, which produces as output a fixed-length,128-bit "message digest" or "hash" of the input.'
"It is considered computationally infeasible to reverse the hash process or to produce two message having the same message digest"
Managging Cisco Network Security by Michael Wenstrom pg 464

QUESTION 40
What is the maximum number of combinations of a key is possible with a 56-bit key?

A. 1056

B. 228
C. 256
D. 56
E. 56000

Answer: C

QUESTION 41
Which of the following ports are commonly used for Kerberos communication:

A. TCP Port 534
B. TCP/UDP Port 634
C. TCP/UDP Port 88
D. UDP Port 527
E. None of the above.

Answer: C

QUESTION 42
Which three protocols are typically required to tunnel IPSec Traffic, including Multicast? (Seelct three)

A. ESP
B. NTP
C. SCEP
D. ISAKMP
E. ICMP
F. GRE
G. CEP

Answer: A, D, F

QUESTION 43
What type of ICMP unreachable packet is using in conjunction with IPSec to allow normal operations of PMTU discovery?

A. ICMP type 3 code 4
B. ICMP type 3 code 3
C. ICMP type 3 code 2
D. ICMP type 3 code 1

Answer: A
Path MTU (PMTU) is used to discover the maximum packet size that can be sent without fragmentation.
ICMP type 3 codes:
1 Host Unreachable
2 Protocol Unreachable

3 Port Unreachable
4 Fragmentation Needed and Don't Fragment was Set

QUESTION 44
In the IPSec suite of protocols, which are two of the main fields of the Security Association? (Multiple answer)

A. SPI
B. Connection ID
C. Proxy IP addresses
D. BIA (Burned in Address)
E. MAC address

Answer: A, B

QUESTION 45
What is NOT an example of supported ISAKMP credentials?

A. Pre-shared
B. RSA
C. Certificate authority
D. Perfect Forward Secrecy

Answer: D

QUESTION 46
What strategy best describes hot to pass EIGRP update through an IPSec tunnel?

A. Define the IPSec tunnel as an interface on the router and specify that interface in the EIGRP configuration
B. Define the IPSec proxy to allow and accept broadcast traffic
C. Define the IPSec proxy to allow only EIGrp traffic through the tunnel
D. Define a GRE tunnel, send the EIGRP updates through the GRE and encrypt all GRE traffic

Answer: D

QUESTION 47
Cipher text can be defined as:

A. The key used to encrypt a message
B. The public key that has been exchanged with a peer and is used to determine the original message
C. The post-encrypted message that travels on the wire
D. The key used for a one way hash in an IPSec Phase Tow exchange
E. The result of a message after it has been decrypted on the receiving and

Answer: C

QUESTION 48
Network topology exhibit

The client Certkiller A can ping through the GRE runnel to the Certkiller B server and receive small files just fine, but large web page download and file transfer will fail. "debug ip icmp" on router 2 shows "frag. Needed and DF set unreachable" messages sent to the server. Which are possible solutions to this problem?

A. If the physical link between Router Certkiller 1 and Router Certkiller 2 can support a MTU size greater than 1524 bytes, then increase the interfaces MTU between the tunnel and points to greater than 1524 bytes, then
B. Decrease the physical interface MTU between the tunnel and points to less than 1476 bytes.
C. Increase the IP MTU on the tunnel interfaces to 1500
D. Enable "ip unreachables" on all interfaces on Router Certkiller 2
E. Check to see if there is a filtering device between Router Certkiller 2 and the server that's blocking ICMP messges. If so, change the filter rule to allow ICMP

Answer: A

QUESTION 49
What would the recommended way to secure a credit card number on a public server?

A. Encrypt the credit card number with a key known only by the admin or root account
B. Encrypt the credit card number with a key derived by a combination of identity and password information entered by the user when they log onto the server
C. Encrypt the credit card number with a randomly generated key hash under control of the admin or root account
D. Encrypt the credit card number with a fixed key but regenerate the key on a frequent basis

Answer: B

QUESTION 50
What IPSec component is used to ensure the integrity of the in an IP packet?

A. ESP-DES
B. AH
C. IPSH

D. TTL

Answer: B

QUESTION 51
What built-in feature of the IPSec header is used to protect against replay attacks?

A. Initialization vector
B. Redundancy tag
C. Resend cookie
D. Header CRC
E. Sequence number

Answer: E
A replay attack is one in which an attacker obtains a copy of an authenticated packet and later transmits it to the intended destination. The receipt of duplicate, authenticated IP packets may disrupt service in some way or may have some other undesired consequence. The Sequence Number field is designed to thwart such attacks.

QUESTION 52
Assuring two systems that are using IPSec to protect traffic over the internet, what type of general attack could compromise the data? (Select one)

A. Spoof Attack
B. Smurf Attack
C. Man in the Middle Attack
D. Trojan Horse Attack
E. Back Orifice Attack

Answer: C

QUESTION 53
Network topology exhibit.

In the shown debugs from the router 192.1.1.1. why are are outbound IPSec packets in the debugs not seen?
IP: s=200.1.1.2(Ethernet0), d=192.1.1.1(Ethernet0), len 136, rcvd3, proto=50
IP: s=10.1.2.2 (Ethernet0), d=10.1.1.10 (Ethenet1), g=10.1.1.10, len 84, forward
ICMP type=8, code=0
IP: s=10.1.1.10 (Ethernet1), d=10.1.2.2 (Loopback0), g=10.0.0.2, len 84, forward

ICMP type=0, code=0

A. Router debugging works by displaying the packet in the outbound direction before IPSec is applied to the outbound packet.
B. IPSec proxies do not match at either end.
C. There would be no debugs because the return pings would not go through the IPSec tunnel.
D. The crypto map is not correctly applied to the outbound interface 192.1.1.1.

Answer: A

QUESTION 54
What statement is FALSE about Simple Certificate Enrollment Protocol (SCEP)?

A. SCEP is used to obtain the CA's certificate.
B. SCEP uses HTTP as a transport mechanism.
C. SCEP is used to obtain CRLs.
D. SCEP is used for router to router communication to check the peer's enrollment certificate.

Answer: D

QUESTION 55
A remote user tries to login to a secure network using Telnet, but accidently types in an invalid user name or password. Which responses would NOT be preferred by an experienced Security Manager? (multiple answer)

A. Invalid Username
B. Invalid Password
C. Authentication Failure
D. Login Attempt Failed
E. Access Denied

Answer: A, B
As little information as possible should be given about a failed login attempt. Invalid username or password is not desirable.

QUESTION 56
Which are the correct port numbers use for IPSec communication?

A. IP Protocol 51 for ESP, IP Protocol 50 for AH
B. IP Protocol 50 for ESP, IP Protocol 51 for AH
C. IP Protocol 51 for ESP, IP Protocol 500 for AH
D. TCP 51 for ESP, TCP 50 for AH
E. TCP 50 for ESP, TCP 51 for AH

Answer: B
ESP uses IP protocol 50, AH uses IP protocol 51.

QUESTION 57
Exhibit:

A network Admin is having problems getting two IPSec routers t o authenticate using RSA-sig as an authentication method. The output of the IOS command show crypto ca cert yields the following output. What is the likely reason for the authentication failure?

A. The current date of the router is out of the range of the certificate's validity date.
B. The certificate has a leading one in the serial number field which violated the x.509 certificate standard.
C. The router has not yet obtained an identity certificate form the root. CA.
D. The root CA has rejected the other routers attempt to authenticate.

Answer: A

QUESTION 58
Exhibit:

Router Certkiller1

access-list 101 permit ip 10.1.1.0 0.0.0.255 20.1.1.0 0.0.0.255

Router Certkiller2

access-list 101 permit ip host 20.1.1.0 10.1.1.0 0.0.0.255

The security Manager has configured two router with the IPSec access lists shown. What behavior is expected if a telnet is launched form 20.1.1.20, destined for 10.1.1.10?

A. Traffic from 10.1.1.0/24 from Router Certkiller 1 will be encrypted when going to addesses 20.1.1.0/24 on Router.
B. Telnet traffic to and from 20.1.1.10 will be encrypted.
C. Phase Two negotiation will fail with invalid proxies and traffic will not flow.
D. Phase Two will pass, but traffic will to be encrypted.

Answer: C

QUESTION 59
The Certkiller Network Administrator is trying to configure IPSec with a remote system. When a tunnel is initiated from the remote end, the security associations (SAs) come up without errors. However, the administrator received a report that encrypted traffic is never successfully sent between the two endpoints.
What is a possible cause?

A. NAT could be running between the two IPSec endpoints.
B. A mismatched transform set between the two IPSec endpoints.
C. There is a NAT overload running between the two IPSec endpoints.
D. Mismatched IPSec proxy between the two IPSec endpoints.

Answer: C

Explanation: This configuration will not work with port address translation (PAT). Note: NAT is a one-to-one address translation, not to be confused with PAT, which is a many (inside the firewall)-to-one translation. IPSec with PAT may not work properly because the outside tunnel endpoint device cannot handle multiple tunnels from one IP address. You will need to contact your vendor to determine if the tunnel endpoint devices will work with PAT Question- What is PAT, or NAT overloading? Answer- PAT, or NAT overloading, is a feature of Cisco IOS NAT and can be used to translate internal (inside local) private addresses to one or more outside (inside global-usually registered) IP addresses. Unique source port numbers on each translation are used to distinguish between the conversations. With NAT overload, a translation table entry containing full address and source port information is created.

QUESTION 60
The newly appointed Certkiller trainee technician want to know which of the following represents the principles of a one way hash function. What will your reply be? (Choose two.)

A. A fixed length output is created from a variable length input by a hash function.
B. A hash function cannot be random and the receiver cannot decode the hash.
C. A hash function is usually operated in an IPSec environment to provide a fingerprint for a packet.
D. A hash function must be easily decipherable by anyone who is listening to the exchange.

Answer: A, C

Explanation: Developers use a hash function on their code to compute a diges, which is also known as a oneway hash .The hash function securely compresses code of arbitrary length into a fixed-length digest result.

QUESTION 61
What is the consequence that one can expect when an IPSec authentication header (AH) is used in conjunction with NAT on the same IPSec endpoint?

A. NAT has no impact on the authentication header.
B. IPSec communication will fail due to AH creating a hash on the entire IP packet before NAT.
C. Only IKE will fail due to AH using only IKE negotiation.
D. AH is no a factor when used in conjunction with NAT, unless Triple DES is included in the transform set.

Answer: B

Explanation: AH runs the entire IP packet, including invariant header fields such as source and destination IP address, through a message digest algorithm to produce a keyed hash. This hash is used by the recipient to

authenticate the packet. If any field in the original IP packet is modified, authentication will fail and the recipient will discard the packet. AH is intended to prevent unauthorized modification, source spoofing, and man-in-the-middle attacks. But NAT, by definition, modifies IP packets. Therefore, AH + NAT simply cannot work.

QUESTION 62
Which of the following statements regarding SNMP v1 community strings is valid?

A. SNMP v1 community strings are encrypted across the wire.
B. SNMP v1 community strings can be used to gain unauthorized access into a device if the read-write string is known.
C. SNMP v1 community strings are always the same for reading & writing data.
D. SNMP v1 community strings are used to define the community of devices in a single VLAN.

Answer: B

Explanation: SNMP is also capable changing the configurations on the host, allowing the remote management of the network device.

QUESTION 63
How many IPSec security associations should be active on the system under normal circumstances, after a single IPSec tunnel has been established?

A. One per protocol (ESP and AH)
B. Two per protocol (ESP and AH)
C. Three per protocol (ESP and AH)
D. Four per protocol (ESP and AH)
E. Five total (either ESP or AH)

Answer: B

Explanation: Once established, the set of security associations (outbound, to the remote peer) is then applied to the triggering packet as well as to subsequent applicable packets as those packets exit the PIX Firewall. "Applicable" packets are packets that match the same access list criteria that the original packet matched. For example, all applicable packets could be encrypted before being forwarded to the remote peer. The corresponding inbound security associations are used when processing the incoming traffic from that peer. If IKE is used to establish the security associations, the security associations will have lifetimes so that they will periodically expire and require renegotiation. (This provides an additional level of security.) Multiple IPSec tunnels can exist between two peers to secure different data streams, with each tunnel using a separate set of security associations. For example, some data streams might be just authenticated while other data streams must be both encrypted and authenticated. You can change the global lifetime values that are used when negotiating new IPSec security associations. (These global lifetime values can be overridden for a particular crypto map entry.) These lifetimes only apply to security associations established via IKE. Manually established security associations do not expire. There are two lifetimes: a "timed" lifetime and a "traffic-volume" lifetime. A security association expires after the respective lifetime is reached and negotiations will be initiated for a new one.

QUESTION 64
Which of the following does NOT qualify to be an example of a supported ISAKMP keying mechanism?

A. Pre-shared
B. Perfect Forward Secrecy
C. RSA
D. Certificate authority

Answer: B

Explanation: The three main mechanisms of devices authentication are - Preshared keys, Digital signatures, encrypted nonces CCIE Professional Development Networks Security Principles and Practices by Saadat Malik pg 306 The two entities must agree on a common authentication protocol through a negotiation process using either RSA signatures, RSA encrypted nonces, or pre-shared keys. To specify that IPSec should ask for perfect forward secrecy (PFS) when requesting new security associations for this crypto map entry, or that IPSec requires PFS when receiving requests for new security associations

QUESTION 65
What does the transport mode & tunnel mode in the IPSec protocol suite describe?

A. It describes AH header and datagram layouts.
B. It describes Diffie-Hellman keying.
C. It describes SHA security algorithm.
D. It describes ESP header and datagram layouts.

Answer: D

Explanation: OK I dont get this question ESP or AH can be used in tunnel or transport mode. - CCIE PRofessional Development Network Security Pratices and Principles by Saadit Malik pg 313-316 In Transport Mode ESP, the ESP header is inserted into the IP datagram immediately prior to the transport-layer protocol header (such as TCP, UDP, or ICMP). In Tunnel Mode ESP, the original IP datagram is placed in the encrypted portion of the ESP and that entire ESP frame is placed within a datagram having unencrypted IP headers.

QUESTION 66
Exhibit:
/etc/hosts.equiv:
2.2.2.2
/etc/passwd:
user_B:x:1003:1:User B:/export/home/user_B:/bin/ksh
user_C:x:1004:1:User C:/export/home/user_C:/bin/ksh
with host_B having the ip 2.2.2.2 & host C having the ip 3.3.3.3
Given the files shown in the exhibit, which policy would be enforced?

A. Allow user_B on Host_B to access host_A via rlogin, rsh, rcp, & rcmd without a password.
B. Allow users to telnet from host_B to host_A but prevent users from telnetting from unlisted hosts

including host_C
C. Allow users on host_A to telnet to host_B but not to unlisted hosts including host_C
D. Allow user_B to access host_A via rlogin, rsh, rcp, & rcmd with a password but to prevent access from unlisted hosts including host_C

Answer: A

QUESTION 67
Given the situation where two routers have their SA lifetime configured for 86399 seconds and 2 million kilobytes. What will happen after 24 hours have passed and 500 KB of traffic have been tunneled?

A. If pre-shared keys are being used, traffic will stop until new keys are manually obtained and inputted.
B. The SA will be renegotiated.
C. The SA will not be renegotiated until 2 MB of traffic have been tunneled.
D. Unencrypted traffic will be sent.

Answer: B

Explanation: more or less 86399 seconds is 23.9 hours however 86400 is 24 hours so the SA need to be renegotiated

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QUESTION 68
The Certkiller Security Manager needs to configure an IPSec connection using ISAKMP with routers from mixed vendors. Which information would be superfluous when configuring the local security device to communicate with the remote machine?

A. Remote peer address.
B. Main mode attributes.
C. Peer gateway subnet.
D. Quick mode attributes.
E. Addresses that need to be encrypted.
F. Encryption authentication method.

Answer: C

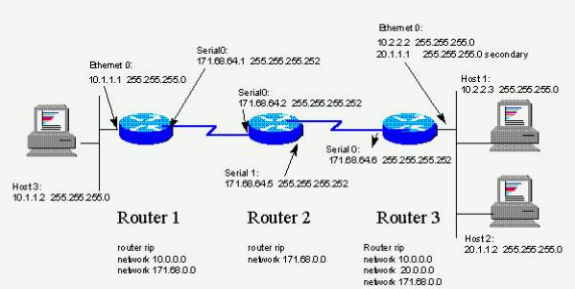
Explanation: The peers gateway subnet is not needed. The address is needed.

QUESTION 69
Why is an ISAKMP NOTIFY message used between IPSec endpoints?

A. ISAKMP NOTIFY message informs the other side of failures that occurred.
B. ISAKMP NOTIFY message informs the other side of the status of an attempted IPSec transaction.
C. ISAKMP NOTIFY message informs the other side when a physical link with an applied SA has been torn down.
D. ISAKMP NOTIFY message informs the other side when an SA has been bought up on an unstable physical connection; potential circuit flapping can cause problems for SPI continuity.

Answer: B

QUESTION 70
Exhibit:



What could be the most likely reason why Host 1 cannot ping Host 2 and Host 2 cannot ping Host 1?

A. Split horizon issue.
B. Default gateway on hosts.
C. Routing problem with RIP.
D. All of the above.

Answer: B
As in the Exhibit, Host 1 and Host 2 are physically in same segment but logically different subnet, only the possible cause is default gateway setting in each host.
If the question says Host 1 cannot PING Host 3 and Host 3 cannot PING host1, then D is the correct answer.

QUESTION 71
Which of the following statements regarding the Diffie-Hellman key exchange is invalid?

A. The local secret key is combined with known prime numbers n and g in each router for the purposes of generating a Public key.
B. Each router uses the received random integer to generate a local secret (private) crypto key.
C. Each router combines the private key received from the opposite router with its own public key in the creation of a shared secret key.
D. The two routers involved in the key swap generate large random integers (i), which are exchanged covertly.

Answer: C

QUESTION 72
Exhibit:
Configuration of Router A:
crypto map tag 1 ipsec-isakmp
set security-association lifetime seconds 240
set security-association lifetime kilobytes 10000
Configuration of Peer Host Router B:
crypto map tag 1 ipsec-isakmp

set security-association lifetime seconds 120
set security-association lifetime kilobytes 20000
Router A is configured as shown. What situation will you encounter after 110 seconds and 1500 kilobytes of traffic?

A. There will be no communication between Router A and Router B because the security association lifetimes were misconfigured; they should be the same.
B. The security association will not be renegotiated until 20000 kilobytes of traffic have traversed the link, because the interval will be the greater of 2 parameters - time and kilobytes.
C. Security association renegotiation will have started by default
D. The present security associations will continue until almost 240 seconds have elapsed, assuming the same traffic pattern and rate.

Answer: C

QUESTION 73
The newly appointed Certkiller trainee technician wants to know which encryption algorithm is used for Microsoft Point-to-Point Encryption. What will your reply be?

A. DES CBC
B. RSA RC4
C. RSA CBC
D. DES RC4

Answer: B

Explanation: MPPE uses the RSA RC4 [3] algorithm to provide data confidentiality.

QUESTION 74
What type of crypto maps and keying mechanism would advice the new Certkiller trainee technician to be the most secure for a router connecting to a dial PC IPSec client?

A. Static crypto maps with pre-shared keys.
B. Static crypto maps with RSA.
C. Dynamic crypto maps with CA.
D. Dynamic crypto maps with pre-shared keys.

Answer: C

QUESTION 75
You are the Certkiller network administrator. The Certkiller network is using Certificate Authorizes (CA) for ISAKMP negotiation. You want to configure ISAKMP.
Which of the following will work? (Select one)

A. crypto isakmp policy 4
authentication cert-rsa

B. crypto isakmp policy 4
authentication ca
C. cpto isakmp policy 4
authentication cert-sig
D. crypto isakmp policy 4
authentication rsa-sig
E. cryptp isakmp policy 4
authentication rsa-enc

Answer: D

QUESTION 76
You are the network administrator at Certkiller . A workstation on the Certkiller network has been the victim of a program that invokes a land.c attack.
The newly appointed Certkiller trainee technician wants to know what this program does. What will your reply be?

A. It sends a stimules stream of ICMP echo requests ("pings") to the broadcast address of the reflector subnet, the source addresses of these packets are falsified to be the address of the ultimate target.
B. It sends a stimulus stream of UDP echo requests to the broadcast address of the reflector subnet, the source addresses of these packets are falsified to be the address of the ultimate target.
C. It sends an IP datagram with the protocol field of the IP header set to 1 (ICMP), the Last Fragment bit is set, and (IP offset *8)+ (IP data length) 65535; in other words, the IP offser (which represents the starting position of this fragment in the original packet, and which is in 8 byte units) plus the rest of the packet is greater than the maximum size for an IP packet.
D. It sends a TCP SYN packet (a connection initiation), giving the target host's address as both source and destination, and using the same port on the target host as both source and destination.

Answer: D

QUESTION 77
You are the network administrator at Certkiller . You want to pass RIP updates through an IPSec tunnel. What should you do?

A. Define the IPSec tunnel as an interface on the router and specify that interface in the RIP configuration.
B. Define the IPSec proxy to allow and accept broadcast traffic.
C. Define the IPSec proxy to allow only RIP traffic through the tunnel.
D. Define a GRE tunnel, send the RIP updates through the GRE and encrypt all GRE traffic.

Answer: D

QUESTION 78
Which off the following lists the correct port numbers required for IPSec communication?

A. UDP 500 ISAKMP, IP Protocol 51 for ESP, IP Protocol 50 for AH
B. UDP 500 ISAKMP, IP Protocol 50 for ESP, IP Protocol 51 for AH

C. UDP 500 ISAKMP, IP Protocol 51 for ESP, IP Protocol 500 for AH
D. UDP 500 ISAKMP, TCP 51 for ESP, TCP 50 for AH
E. UDP 500 ISAKMP, TCP 50 for ESP, TCP 51 for AH

Answer: B

QUESTION 79
How can a Denial of Service (DoS) attack to a Firewall device be carried out?

A. By flooding the device through sending excessive mail messages to it..
B. Sending excessive UDP packets to it.
C. By sending more packets to the device that it can process.
D. Sending ICMP pings with very large data lenghts to it.
E. All of the above.

Answer: E

QUESTION 80
Which of the following IPSec components can be used to ensure the integrity of the data in an IP packet?

A. ESP
B. IPSH
C. AH
D. TTL
E. None of the above.

Answer: C

QUESTION 81
How would you characterize the source and type in a denial of service attack on a router?

A. By performing a show ip interface to see the type and source of the attack based upon the access-list matches.
B. By performing a show interface to see the transmitted load (txload) and receive load (rxload); if the interface utilization is not maxed out, there is no attack underway.
C. By setting up an access-list to permit all ICMP, TCP, & UDP traffic with the log or log-input commands, then use the show access-list and show log commands to determine the type and source of attack.
D. By applying an access-list to all incoming & outgoing interfaces, turn off route-cache on all interfaces, then, when telnetted into the router perform a debug ip packet detail.

Answer: C

QUESTION 82
The Certkiller Network Administrator makes use of manual keys in her IPSec implementation. However, when data is sent across the tunnel, an error is generated that indicates malformed packets.

What is the most probable reason for this error?

A. Unmatching cipher keys on both sides.
B. Incomplete Phase One negotiation.
C. Corrupted packets due to invalid key exchanges.
D. Mismatched ISAKMP pre-shared keys on both sides.

Answer: D

QUESTION 83
IKE Phase 1 policy negotiation can include:

A. Main Mode
B. Neither Main Mode or Quick Mode
C. Either Aggressive Mode or Main Mode
D. Quick Mode only
E. IPSec mode
F. Aggressive mode

Answer: C

QUESTION 84
IKE Phase 1 policy does not include negotiation of the:

A. Encryption algorithm
B. Authentication method
C. Diffie-Hellman group
D. Lifetime
E. Crypto-map access-lists

Answer: E

QUESTION 85
IKE Phase 1 policy negotiation includes:

A. Main mode
B. Aggressive mode
C. Either Main mode or Aggressive mode
D. Neither Main mode nor Aggressive mode

Answer: C
IKE phase 1 negotiation can be completed using either main mode or aggressive mode.

QUESTION 86
Network Topology Exhibit:


```
Applied to the crypto map on Router Certkiller1's S0 Interface:
match address 101
access-list 101 permit ip host 1.1.1.X host 3.3.3.X

Applied to the crypto map on Router Certkiller2's S0 Interface:
match address 102
access-list 1092 permit ip host 1.1.1.x host 3.3.3.x
```

Given the shown Ipsec example and IPSec with IKE, when a user attempts to telnet form network 1.1.1.X to network 3.3.3.X:

A. The telnet will succeed but the traffic will not be encrypted.
B. The telnet will fail because the access lists are asymmetric
C. The telnet will succeed and the traffic will be bidirectionally encrypted
D. The telnet will fail because access-list 101 should have been applied to router A's interface 1.1.1.2

Answer: B
The access-lists on the two routers need to be symmetric for traffic to be encrypted in both directions. The access-list on router CK2 needs to be:
Access-list 102 permit ip host 3.3.3.x host 1.1.1.x

QUESTION 87
RPF is an acronym for which of the following:

A. Reverse Path Flooding
B. Router Protocol Filter
C. Routing Protocol File
D. Reverse Path Forwarding
E. None of the above.

Answer: D

Explanation: This chapter describes Unicast Reverse Path Forwarding (Unicast RPF) commands.

QUESTION 88
Which negotiation is excluded from IKE Phase 1 policy?

A. Encryption algorithm
B. Authentication method.
C. Crypto-map access-list
D. Diffie-Hellman group.
E. Lifetime

F. All of the above.

Answer: C

Explanation: "Ike Phase 1 Policy Parameters - Encryption, Hash, Authentication method, Key exchange, Ike SA lifetimes" Cisco Secure PIX Firewall Advanced 2.0 14-14 "IKE's responsiblities in the IPSEC protocol include Negotiating protocol parameters, Exchaning public keys, authenticating both sides, managing keys after the exchange...In Phase 1 exchange, peers negotiate a secure, authenticated channel with which to communicate." CCIE PRofessional Development Network Security Pratices and Principles by Saadit Malik pg 276, 278 "The first two messages in IKE main mode negotiation are used to negotiate the various values, hash mechanismes, and encryption mechanisms to use for the later half of the IKE negotiations." CCIE PRofessional Development Network Security Pratices and Principles by Saadit Malik pg 280

QUESTION 89
PPTP:

A. Shares TPC and UDP ports 137, 128, & 139 with NetBIOS traffic.
B. Is a modified version of GRE.
C. Uses TCP ports 1030, 1031, & 1032.
D. Used UDP ports 1030, 1031, & 1032.

Answer: B
PPTP can be used to tunnel a PPP session over an IP network. A tunnel is defined by a PNS-PAC pair. The tunnel protocol is defined by a modified version of GRE [1,2]. PPTP uses a TCP connection that uses TCP port 1723 and extension of GRE (IP protocol 47) to carry the actual data (PPP frame). The TCP connection is initial by client, followed by the GRE connection that is initiated by server.
Reference:
http://www.ietf.org/rfc/rfc2637.txt

QUESTION 90
You are the network technician at Certkiller . You are implementing a firewall on the Certkiller network. You need to ensure that PPTP can pass through the firewall. Which of the following should you permit?

A. IP Protocol 47 and UDP 1723
B. IP Protocol 47 and TCP 47.
C. IP Protocol 47 and TCP 1723.
D. IP Protocol 1723 and TCP 47.
E. TCP and UDP 1723.

Answer: C

QUESTION 91
802.1x is initiated by which actions?

A. A machine that is plugged into a switch activates it's Ethernet port
B. A switch or router sends an EOL start message

C. A certificate being passed to an authentication server
D. A radius authentication server request from a client

Answer: A
If you enable authentication on a port by using the dot1x port-control auto interface configuration command, the switch must initiate authentication when it determines that the port link state transitions from down to up.

QUESTION 92
What would be the best reason for selecting L2TP as a tunnel protocol for a VPN Client?

A. L2TP uses TCP as a lower level protocol so the transmission are connection oriented, resulting in more reliable delivery.
B. L2TP uses PPP so address allocation and authentication is built into the protocol instead of relying on IPSec extended functions, like mode config and x-auth.
C. L2TP does not allow the use of wildcard pre-shred keys, which is not as secure as some other methods.
D. L2TP has less overhead than GRE.

Answer: B
L2TP uses UDP, so A is not correct. L2TP is an extension to the Point-to-Point Protocol (PPP), so B is the correct answer.

QUESTION 93
A Security Manager needs to allow L2TP traffic through the firewall into the Internet network.
What ports generally need to be opened to allow this traffic to pass?

A. TCP/UDP 1207
B. TCP/UDP 500
C. IP 50, IP 51
D. TCP 49
E. UDP 1701
F. TCP 1072

Answer: E
UDP port 1701 is used as the carrier of all L2TP traffic, including the control traffic used to set up the tunnel between the LNS and the LAC.
Reference,
Page 243, Network Security and Principle and Practices, Cisco press

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QUESTION 94
What process will normally occur if an active Main Mode generated Phase One security association times out?

A. Only Quick mode security associations will be regenerated.
B. Main mdoe and Quick mode security associations must be regenerated.

C. Aggressive mode will regenerate new security associations.
D. Only Phase One security associations must be regenerated.
E. No security associations will be regenerated.

Answer: B

QUESTION 95
A Security Manager needs to allow L2TP traffic through the firewall into the Internet network.
What ports generally need to be opended to allow this traffic to pass?

A. TCP/UDP 1207
B. TCP/UDP 500
C. IP 50, IP 51
D. TCP 49
E. UDP 1701
F. TCP 1072

Answer: E
UDP port 1701 is used as the carrier of all L2TP traffic, including the control traffic used to set up the tunnel between the LNS and the LAC.
Reference,
Page 243, Network Security and Principle and Practices, Cisco press

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QUESTION 96
Identify the two types of access hardware involved in an L2TP connection: (Multiple answer)

A. L2TP Access Concentrator (LAC)
B. Remote Access Concentrator (RAC)
C. Layer 2 Forwarding Device (L2FD)
D. L2TP Network Server (LNS)

Answer: A, D
Reference:
Page 243, Network Security and Principle and Practices, Cisco press

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QUESTION 97
When implementing network security at a specific site what would be your first step?

A. Hire a qualified consultant to install a firewall and configure your router to limit access to known traffic.
B. Run software to identify flaws in your network perimeter.
C. You must design a security policy.
D. You have to purchase and install a firewall for network protection.
E. You need to install access-control lists in your perimeter routers, to ensure that only known traffic is getting through your router.

Answer: C

Explanation: A Network security policy defines a framework to protect the assets connected to a network based on a risk assessment analysis. A network security policy defines the access limitations and rules for accessing various assets connected to a network. It is the source of information for users and administrators as they set up, use, and audit the network. CCIE Professional Development Network Security Principles and Practices by Saadat Malik pg 8

QUESTION 98
Why would you advice the new Certkiller trainee technician to select L2TP as a tunnel protocol for a VPN Client?

A. L2TP makes use of TCP as a lower level protocol to result in conntection oriented transmissions, resulting in more reliable delivery.
B. L2TP makes use of PPP so address allocation and authentication is built into the protocol instead of IPSec extended function reliant, like mode config and a-auth.
C. L2TP does not permit wildcard pre-shared keys usage, which is not as secure as some other methods.
D. L2TP has less overhead than GRE.

Answer: B

Explanation: L2TP uses UDP which is connectionless protocol CCIE Professional Development Network Security Principles and Practices by Saadat Malik pg 243 L2TP, which stands for Layer 2 Tunneling Protocol, is an IETF standard emerging that combines Layer 2 Forwarding protocol (L2F) and Point-to-Point Tunneling protocol (PPTP). L2TP has all the security benefits of PPP, including multiple per user authentication options (CHAP, PAP, and MS-CHAP). It also can authenticate the tunnel end points, which prevents potential intruders from building a tunnel and accessing precious corporate data. To ensure further data confidentiality, Cisco recommends adding IPSec to any L2TP implementation. Depending on the corporation's specific network security requirements, L2TP can be used in conjunction with tunnel encryption, end-to-end data encryption, or end-to-end application encryption. L2TP header: 16 bytes maximum (in case all options are used, RFC 2661) 24 (bit) for the GRE overhead

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QUESTION 99
TFTP security May be controlled by: (multiple answer)

A. A username/password
B. A default TFTP directory
C. A TFTP directory
D. A TFTP file
E. A pre-existing file on the server before it will accept a put
F. File privileges

Answer: E, F

QUESTION 100
Which of the following controls TFTP security? (Choose all that apply.)

A. A default TFTP directory.
B. A username/password.
C. A TFTP file.
D. A pre-existing file on the server before it will accept a put.
E. File privileges.

Answer: A, D, E

Explanation: username/password- is for FTP a default TFTP directory - one has to be in your tftp server and the location listed in the tftp command
In uploading code you need to have a file but some programs like solarwinds will download the running config via tftp and make the file

---

QUESTION 101
Which of the following is a well known port commonly used for TFTP?

A. TCP 23
B. UDP 69
C. UDP 23
D. UDP 161

Answer: B

Explanation: Abbreviation of Trivial File Transfer Protocol, a simple form of the File Transfer Protocol (FTP). TFTP uses the User Datagram Protocol (UDP)and provides no security features. It is often used by servers to boot diskless workstations, X-terminals, and routers.

QUESTION 102
Why would you advice the new Certkiller trainee technician NOT to use TFTP with authentication?

A. TFTP makes use of UDP as transport method.
B. A server initiates TFTP.
C. TFTP protocol has no hook for a username/password.
D. TFTP is already secure.
E. All of the above.

Answer: C

Explanation: FTP requires a username and password. TFTP does not.

QUESTION 103
What does the TFTP protocol do?

A. TFTP protocol makes use of the UDP transport layer and requires user authentication.
B. TFTP protocol makes use of the TCP transport layer and does not require user authentication.
C. TFTP protocol makes use of the UDP transport layer and does not require user authentication.

D. TFTP protocol makes use of TCP port 69.
E. TFTP protocol makes prevents unauthorized access by doing reverse DNS lookups before allowing a connection.

Answer: C

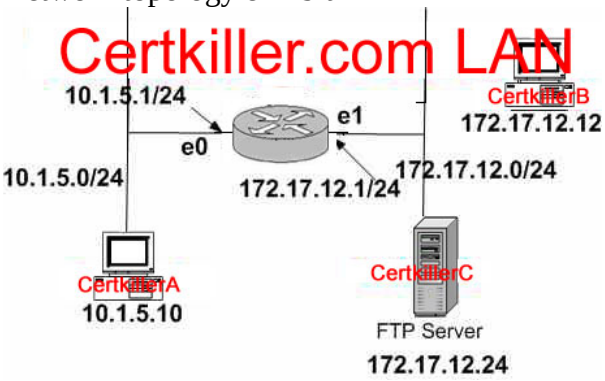
Explanation: TFTP does not require password authentication, and uses UDP port 69. this rules out all answers except C

QUESTION 104
Which statements about FTP are true? Select two.

A. FTP always uses two separate TCP sessions - one for control and one for data.
B. With passive mode FTP, both the control and data TCP session are initialed from the client.
C. With active mode FTP, the server the "PORT" command to tell the client on which port it wishes to send and data.
D. For both active and passive mode FTP, the control session on the server always TCP port 21, and the data session

Answer: A, B
Not C: It is not the server who send 'PORT' command to client, but the reverse.

QUESTION 105
Network topology exhibit



Symptoms:
Syslog logging: enabled (0 messages dropped, 0 flushes, 0 overruns)
Console loggin: level warnings, 0 messages logged
Monitor logging: level informational, 0 messages logged
Buffer logging: level informational, 0 messages logged
Trap loggin: level informational, 0 message lines logged
Note: Router Certkiller 1's CPU is normally about 25 busy switching packets
Scenario:
Host Certkiller A cannot reach the Certkiller C FTP Server, but can reach Host Certkiller B. The network administrator suspects that packets are traveling from network 10.1.5.0 to the Certkiller C FTP Server, but packets are not returning. The administrator logs in to console part of Router Certkiller 1. When Host Certkiller A sends a ping to the Certkiller C FTP Server, the administrator executes a "debug ip packet"

command on the router.
The administrator does not see any output, what additional commands could be used to see the packet flowing from Ethernet 0 to Ethernet 1?

A. terminal monitor
B. configure terminal
logging console debug
interfaces ethernet 1
no ip route-cache
C. configuring terminal
logging console debug
D. configure terminal
no logging buffered
E. configure terminal
interface ethernet0
no ip route-cache

Answer: B

QUESTION 106
A network administrator is troubleshooting a problem with FTP services. If a device blocks the data connection, the administrator should expect to see:

A. Very slow connect times
B. Incomplete execution, when issuing commands like "pwd" or "cd"
C. No problems at all
D. User login problems
E. Failure when listing a directory

Answer: E
There are two type of connections used with FTP, a control connection and a data connection. A single control connection is established when the client initiates an FTP session. The control connection is then maintained and used to send commands and receive response messages. When data needs to be transfered (such as when a file is uploaded or downoaded, or when a directory listing is requested) a data connection is opened, used for the transfer, and then closed. If the data connection is blocked, the directory listing will fail.

QUESTION 107
When building a non-passive FTP data connection, the FTP client:

A. Indicates the port number to be use for sending data over the command channel via the PORT command
B. Receives all data on port 20, the same port the FTP server daemon send data from
C. Uses port 20 for establishing the command channel and port 21 for the data channel
D. Initiates the connection form an ephemeral port to the RFC specified port of the server

Answer: A
In active (non-passive) mode FTP the client connects from a random unprivileged port (N > 1024) to the FTP

server's command port, port 21. Then, the client starts listening to port N+1 and sends the FTP command PORT N+1 to the FTP server. The server will then connect back to the client's specified data port from its local data port, which is port 20.

QUESTION 108
The Certkiller network administrator is troubleshooting a problem with FTP services. What will the administrator encounter if a device blocks the data connection?

A. The administrator will experience very slow connect times.
B. Incomplete execution, when issuing commands like "pwd" or "cd".
C. User login problems will occur.
D. Failure when listing a directory.
E. No problems at all.

Answer: D

Explanation: Below is a capation from a cert advisory about FTP. FTP can have problems when the data channel is blocked. In FTP PASV mode, the client makes a control connection to the FTP server (typically port 21/tcp) and requests a PASV data connection. The server responds by listening for client connections on a specified port number, which is supplied to the client via the control connection An active open is done by the server, from its port 20 to the same port on the client machine as was used for the control connection. The client does a passive open. For better or worse, most current FTP clients do not behave that way.

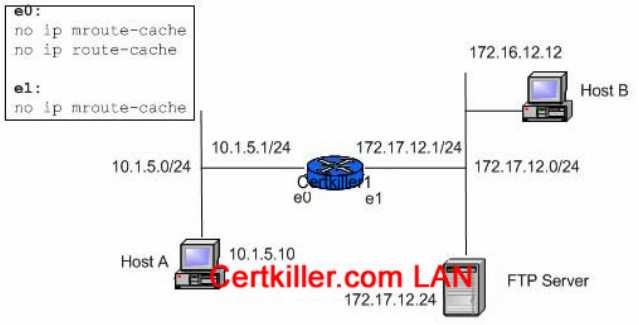
QUESTION 109
What role does the FTP client play when building a non-passive FTP data connection?

A. The FTP client indicates the port number to be used for sending data over the command channel via the PORT command.
B. The FTP client receives all data on port 20, the same port the FTP server daemon sends data from.
C. The FTP client makes use of port 20 for establishing the command channel and port 21 for the data channel.
D. The FTP client initiates the connection from an ephemeral port to the RFC specified port of the server.

Answer: A

Explanation: Standard mode FTP uses two channels for communications. When a client starts an FTP connection, it opens a standard TCP channel from one of its higher-order ports to port 21 on the server. This is referred to as the command channel. Cisco Secure PIX firewall Advanced 2.0 10-5

QUESTION 110
Exhibit:



Symptoms:
- Syslog logging: enabled (0 messages dropped, 0 flushes, 0 overruns)
- Console logging: level debugging, 0 messages logged
- Monitor logging: level informational, 0 messages logged
- Buffer logging: level informational, 0 messages logged
- Trapp Logging: level informational, 0 messages lines logged
Note: Router Certkiller 1's CPU is normally about 25: busy switching packets:
Scenario:
Host A is unable to reach the FTP Server, but can reach Host B. The Certkiller network administrator has a suspicion that packets are travelling from network 10.1.5.0 to the FTP Server, but not returning. The administrator logs into the console port of Router Certkiller 1. When Host A sends a ping to the FTP Server, the administrator executes a "debug ip packet" command on the router.
However during debugging, the administrator observes far too much output.
Which additional commands should the administrator use to limit the debug outputin order to view ONLY host A's bi-directional ICMP ping packets? (Select 2 to 5 answers.)

A. configure terminal
access-list 101 permit icmp 10.1.5.10 0.0.0.0 172.17.12.24 0.0.0.0
access-list 101 permit icmp 172.17.12.24 0.0.0.0 10.1.5.10 0.0.0.0
B. no debug ip packet
debug ip icmp 101
C. debug ip packet 101
D. configure terminal
interface ethernet 1
no ip route-cache
E. configure terminal
access-list 101 permit ip 10.1.5.0 .0.0.0.255 172.17.12.0 0.0.0.255
access-list 101 permit ip 172.17.12.0 0.0.0.255 10.1.5.0 0.0.0.255

Answer: A, C

QUESTION 111
Why is ICAP (Internet Content Adaption Protocol) significant from a security standpoint?

A. ICAP removes harmful code from HTTP transaction.
B. ICAP forwards HTTP content to an AV server for malicious code removal.
C. ICAP is used to authenticate content based on a SSL certificate.

D. ICAP processes running on cache devices act as application level IDS agents.

Answer: B

QUESTION 112
Which describe a service that would be flagged as necessary and enabled by SDM?

A. Password encryption service
B. SNMP
C. FTP
D. SSH
E. TELNET

Answer: A
Reference:
http://www.cisco.com/en/US/products/sw/secursw/ps5318/products_user_guide_chapter09186a00802d4895.html

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QUESTION 113
Certkiller has just selected IPSec to protect its IP traffic traveling on the Internet. They also have decided to use certificates from a public CA vendor that supports Simple Certificate Enrollment Protocol (SCEP).
What default port must be open in the firewall to allow the SCEP traffic?

A. IP Protocol 50 and 51
B. TCP 2002
C. TCP 80
D. UDP 500
E. UDP 80

Answer: C
In the SCEP protocol, HTTP is used as the transport protocol for the PKI messages.
Reference:
http://www.cisco.com/warp/public/cc/pd/sqsw/tech/scep_wp.htm
Note: same answer would be true for CEP.

QUESTION 114
Some packet filtering implementations block Java by finding the magic number 0xCAFEBABE at the beginning of documents returned via HTTP.
The newly appointed Certkiller trainee technician want to know how this Java filter be circumvented.
What will your reply be?

A. By using FTP to download using a web browser.
B. By using Gopher.
C. By using Java applets in zipped or tarred archives.
D. By using non-standard ports to enable HTTP downloads.

E. All of the above.

Answer: E

Explanation: NOT SURE ABOUT THIS ANSWER BUT THE NON-STANDARD PORT AND ZIPPED/TARRED ANSWERS ARE CORRECT. Java blocking can be configured to filter or completely deny access to Java applets that are not embedded in an archive or compressed file. Java applets may be downloaded when you permit access to port 80 (http) (so the non-standard port answer seems logical) Cisco secure PIX firewall Advanced 2.0 9-16 Applets that are transmitted as embedded archives are not recognized and therefore cannot be blocked. CCIE Proffessional Development Network Security Principles and Practices by Saadat Malik pg 203 also see Cisco Certified Internetwork Expert Security Exam v1.7 by John Kaberna pg 404

QUESTION 115
The SSL protocol provides "channel security," but lacks what property?

A. A private channel. Encryption is used for all messages after a simple handshake is used to define a secret key.
B. An authenticated channel. The server endpoint of the conversation is always authenticated, while the client endpoint is optionally authenticated.
C. A reliable channel. The message transport includes a message integrity check (using a MAC).
D. An independent authentication where each transmission requires authentication by the server endpoint.

Answer: D
From the SSL 2.0 Protocol Specification:
The SSL protocol provides "channel security" which has three basic properties:
* The channel is private. Encryption is used for all messages after a simple handshake is used to define a secret key.
* The channel is authenticated. The server endpoint of the conversation is always authenticated, while the client endpoint is optionally authenticated.
* The channel is reliable. The message transport includes a message integrity check (using a MAC).

QUESTION 116
Besides Kerberos port traffic, what additional service does the router and the Kerberos server use in implementing Kerberos authentication on the router?

A. TCP
B. Telnet
C. DNS
D. FTP
E. ICMP
F. None of the above.

Answer: B

Explanation: The following network services are supported by the Kerberos authentication capabilities in Cisco IOS software Telnet, rlogin, rsh, rcp

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QUESTION 117
What is the default port(s) used for web-based SSL (Secure Socket Layer) Communication?

A. TCP and UDP 1025.
B. TCP and UDP 443.
C. TCP 80.
D. TCP and UDP 1353.

Answer: B

Explanation: Secure Sockets Layer (SSL) is an application-level protocol that enables secure transactions of data through privacy, authentication, and data integrity. It relies upon certificates, public keys, and private keys. Use 443 (generally used for SSL transactions) as the SSL TCP service port and 443 as the clear text port. Configure the server to not use SSL and to monitor port 443. TCP service port 80 requests are serviced normally. Use 443 as the SSL TCP service port and 81 (or another unused port) for the clear text port. Configure the server to monitor port 81. TCP service port 80 requests are serviced normally.

QUESTION 118
The Diffie-Hellman key exchange allows two parties to establish a shared secrel key: (Select all that apply)

A. Over an insecure medium
B. After a secure session has been terminated
C. Before a secure session has been initiated
D. During a secure session over a secure medium

Answer: A, B, C

QUESTION 119
Which of the following SMTP command has the ability to identify the SMTP client to the SMTP server?

A. IDENT
B. SEND
C. HELLO
D. HELO
E. MAIL

Answer: D

QUESTION 120
Which of the following protocols can be authenticated? (Choose all that apply.)

A. TFTP
B. Telnet
C. HTTP
D. FTP
E. SMTP

Answer: B, D, E

QUESTION 121
Which of the following commands can be issued to test to see if SMTP mail is operational on a remote host? Select all that apply.

A. 'telnet remote_host 109' and issue the 'helo' command.
B. 'telnet remote_host 110' and issue the 'helo' command.
C. 'telnet remote_host 25' and issue the 'helo' command.
D. 'telnet remote_host 25' and issue the 'esmtp' command.

Answer: C

QUESTION 122
An NTP server will NOT be synchronized by a peer in which modes? (Select two.)

A. Server mode
B. Peer mode
C. Broadcast/Multicast mode
D. Client mode

Answer: A, C
Server Mode--By operating in server mode, a host (usually a LAN time server) announces its willingness to synchronize, but not to be synchronized by a peer. This type of association is ordinarily created upon arrival of a client request message and exists only in order to reply to that request, after which the association is dissolved. Server mode is a passive mode.
Client Mode--By operating in client mode, the host (usually a LAN workstation) announces its willingness to be synchronized by, but not to synchronize the peer. A host operating in client mode sends periodic messages regardless of the reachability or stratum of its peer. Client mode is an active mode.
Peer Mode--By operating in peer mode (also called "symmetric" mode), a host announces its willingness to synchronize and be synchronized by other peers. Peers can be configured as active (symmetric-active) or passive (symmetric-passive).
Broadcast/Multicast Mode--By operating in broadcast or multicast mode, the host (usually a LAN time server--operating on a high-speed broadcast medium) announces its willingness to synchronize all of the peers, but not

to be synchronized by any of them. Broadcast mode requires a broadcast server on the same subnet, while multicast mode requires support for IP multicast on the client machine, as well as connectivity via the MBONE to a multicast server. Broadcast and multicast modes are active modes.

QUESTION 123
- User_A and User_B are both members of the global group "DOMAIN USERS".
- Global group "DOMAIN USERS" is included in local group "USERS".
- All users and groups are in the domain "CORP".
- The directory D:\data has the share permission for local group "USERS" set to "Read".
- The Microsoft Word document D:\data\word.doc has file permissions for local group "USERS" set to "Full Control".
- The Microsoft Word document D:\data\word.doc is owned by User_B.

What do you you expect to happen when User_A tries to edit D:\data\word.doc given the above scenario on a Windows NT 4.0 network?

A. User_A has full control and can edit the document successfully.
B. Insufficient information. Permissions for Microsoft Word are set within the application and are not subject to file and share level permissions.
C. Edit access would be denied.
The "Read" permission is least permissive so it would apply in this situation.
D. Access would be denied.
Only the owner of a file can edit a document.
E. Global groups can not be placed into local groups.
The situation could not exist.

Answer: A

QUESTION 124
- User_A and User_B are both members of the global group "DOMAIN USERS".
- Global group "DOMAIN USERS" is included in local group "USERS".
- All users and groups are in the domain "CORP".
- The directory D:\data has the share permission for local group "USERS" set to "No Access".
- The Microsoft Word document D:\data\word.doc has file permissions for local group "USERS" set to "Full Control".
- The Microsoft Word document D:\data\word.doc is owned by User_B.

What do you you expect to happen when User_A tries to edit D:\data\word.doc given the above scenario on a Windows NT 4.0 network?

A. User_A has full control and can edit the document successfully.
B. Insufficient information. Permissions for Microsoft Word are set within the application and are not subject to file and share level permissions.
C. Edit access would be denied.
The "Read" permission is least permissive so it would apply in this situation.
D. Access would be denied.
"No access" overrides all other permissions, unless the file is owned by the user.

E. Global groups can not be placed into local groups.
The situation could not exist.

Answer: D

QUESTION 125
Exhibit:

What statement is true regarding the following output of the show interface Fast Ethernet0 command?

A. The interfaces is operating in 100mb Full duplex.
B. There is a high rate of collisions recorded on the interface.
C. There is a physical problem with t he connection since there are recorded Runls and CRCs.
D. Collisions, runts and CRC's are normal for a 100mb half-duplex connection.

Answer: D

QUESTION 126
What effect do these configuration commands have?
Line vty 0 4
No login
Password cisco

A. The VTY password is cisco
B. The login password is login
C. The VTY password is required but not set
D. No password is required for VTY access

Answer: D
To enable password checking at login, use the login command in line configuration mode. To disable password checking and allow connections without a password, use the no form of this command.

QUESTION 127
Of the following which can be identified as valid host IP addresses on the Internet? (Choose all that apply.)

A. 235.1.1.1
B. 223.20.1.1

C. 10.100.1.1
D. 127.0.0.1
E. 24.15.1.1

Answer: B, E

Explanation: When you create an internal network, we recommend you use one of the following address groups reserved by the Network Working Group (RFC 1918) for private network addressing:
Class A: 10.0.0.0 to 10.255.255.255
Class B: 172.16.0.0 to 172.31.255.255
Class C: 192.168.0.0 to 192.168.255.255
class D address start with the 1110 bit so the 223.20.1.1 is a legal class C address

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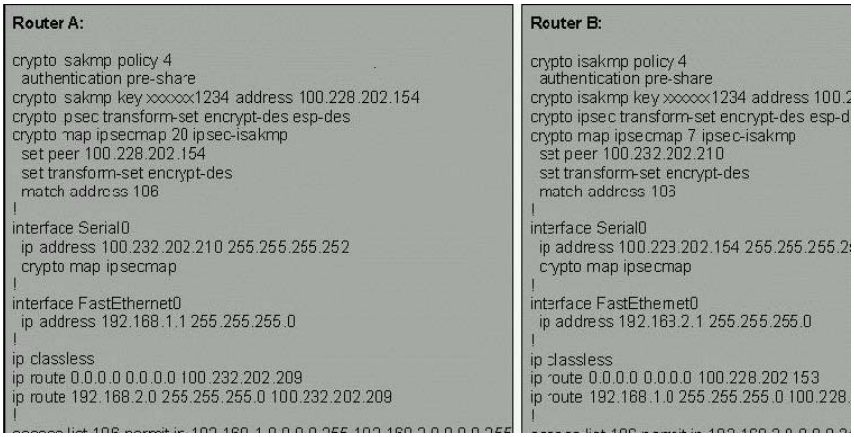
QUESTION 128
What would be the consequence that all the other nodes would experience when a jam signal causes a collision on an Ethernet LAN?

A. All other nodes will recognize the collision and all nodes should stop sending new data.
B. All other nodes will compute part of a hash algorithm to determine the random amount of time the nodes should back off before retransmitting.
C. A signal was generated to help the network administrators isolate the fault domain between two Ethernet nodes.
D. A faulty transceiver is locked in the transmit state, causing it to violate CSMA/CD rules.
E. A high-rate of collisions was caused by a missing or faulty terminator on a coaxial Ethernet network.

Answer: A

Explanation: When a collision is detected the device will "transmit a jam signal" this will will inform all the devices on the network that there has been a collision and hence stop them initiating the transmission of new data. This "jam signal" is a sequence of 32 bits that can have any value as long as it does not equal the CRC value in the damaged frame's FCS field. This jam signal is normally 32 1's as this only leaves a 1 in 2^32 chance that the CRC is correct by chance. Because the CRC value is incorrect all devices listening on the network will detect that a collision has occurred and hence will not create further collisions by transmitting immediately. "Part of a hash algorithm was computed, to determine the random amount of time the nodes should back off before retransmitting." WOULD SEEM CORRECT BUT IT IS NOT
After transmitting the jam signal the two nodes involved in the collision use an algorithm called the "truncated BEB (truncated binary exponential back off)" to determine when they will next retransmit. The algorithm works as follows: Each device will wait a multiple of 51.2us (minimum time required for signal to traverse network) before retransmitting. 51.2us is known as a "slot". The device will wait wait a certain number of these time slots before attempting to retransmit. The number of time slots is chosen from the set {0,.....,2^k-1} at random where k= number of collisions. This means k is initialized to 1and hence on the first attempt k will be chosen at random from the set {0,1} then on the second attempt the set will be {0,1,2,3} and so on. K will stay at the value 10 in the 11, 12, 13, 14, 15 and 16th attempt but on the 17th attempt the MAC unit stops trying to transmit and reports an error to the layer above.

QUESTION 129
Exhibit:



How will IP traffic from the clients typically behave between the two Ethernet subnets?

A. Traffic between the Ethernet subnets on both routers will have to be decrypted.
B. NAT will translate the traffic between the Ethernet subnets on both routers.
C. Traffic will successfully access the Internet, though it will have to be decrypted between the router's Ethernet subnets.
D. Traffic will successfully access the Internet fully encrypted.
E. Traffic bound for the Internet will not be routed because the source IP addresses are private.

Answer: C

Explanation:
NOT ENOUGH OF THE EXHIBIT TO MAKE A REAL CHOICE. THE EXHIBIT IS ONE OF IPSEC TAKE YOUR BEST SHOT.

QUESTION 130
What configuration command could be used to restrict SNMP access to a router?

A. snmp-server public
B. snmp-server password
C. snmp-server community
D. snmp-server host

Answer: C

Explanation: Configure the community string (Optional) For access-list-number, enter an IP standard access list numbered from 1 to 99 and 1300 to 1999.

QUESTION 131
IEEE 802.1D describes a method to prevent the disconnection of a single end station from disrupting Spanning tree. What does the method describe?

A. Re-setting the Topology Change flat to aero (0)

B. Disabling the 801.1D Change Detection parameter
C. Configuring the BirdgeForwayrdDelay to 1/2 of the BirdgeMaxage
D. Using the BridgeForeardDelay timer to age out dynamic entries

Answer: D

QUESTION 132
What does the term "slow sdtart" mean in reference to TCP?

A. This is a method of adjusting timers after detecting a network error.
B. It is poor performance early in the TCP session, caused by setup overhead.
C. It is a bug that caused poor Ethernet performance for short sessions in some early UNIX TCP/IP implementations.
D. It is possible long latency between the time a connection request is made and the time a server is actually ready to respond to the request.
E. The TCP window is set very low and increase slowly after the handshake.

Answer: E

QUESTION 133
Exhibit:
10.1.1.0/24
10.1.3.0/24
10.1.14.64/26
10.1.5.192/30
Given the four networks listed, what valid summary address (below) contains the logest prefix?

A. 10.1.0.0/20
B. 10.1.0.0/16
C. 10.0.0.0/23
D. 10.1.16.0/19
E. These networks cannot be summarized.

Answer: A

QUESTION 134
Network Topology Exhibit:

Host Certkiller 1 is attempting to send a packet through Router Certkiller 2 to Host Certkiller 4. there are no routing protocols configured nor are there any static routes for Router Certkiller 2 or Router Certkiller 2. However, Router Certkiller 2 does have a default-gateway configured to the IP address of Router Certkiller 3 using the configuration ip default-gateway 10.0.2. Will Host Certkiller 1's packet reach Host Certkiller 4?

A. This will work if the router are configured to bridge.
B. This will work because Router Certkiller 2 will forward the packets destined to 10.1.3.0/24 to Router Certkiller 3 through its IP default-gateway configuration.
C. The packets will reach Host Certkiller 4, but Host Certkiller 4 will not be able to communicate back to Host Certkiller 1, so the session will fail.
D. This will work if CDP is enabled on the routers.
E. Routers only route packets to routes in the routing table, not their IP default-gateway so Host Certkiller 1's packets will never reach Router Certkiller 3 or Host Certkiller 4.

Answer: E
By exclusion:

A. This will not work if the routers are configured to bridge because the ip addresses are on a different subnet, and the Host Certkiller 4 will not respond to the arp request.
B. IP default gateway will only send packets to that ip address for packets created locally on the router.
C. The packets will not "reach" the network card unless bridging is enabled, but the host will ignore them because they are in a different subnet. See A.
D. see potsmokers.com

QUESTION 135
Exhibit:

Hosts Certkiller 1 and Certkiller 2 are communicating using TCP. A packet is sent from Certkiller 1 to Certkiller 2, Certkiller 2 replies back to Certkiller 1, and Certkiller 1 acknowledges Certkiller 2's reply. Selected information from this dialogue is shown. Based on the information, predict the correct values for the final acknowledgement from Certkiller 1:

A. Ack=38689 Seq=91734
B. Ack=38689 Seq=91732
C. Ack=38700 Seq=71633
D. Ack=38690 Seq=91733

Answer: D

QUESTION 136
What response will a RADIUS server send to a client to indicate the client's user name or password is invalid?

A. Authentication Denied
B. Access-Reject
C. Access-Deny
D. Access-Fasil
E. ERROR

Answer: B
The Access-Reject message is sent when any of the values offered by the NAS to AAA server are unacceptable to the AAA server
Reference:
Page 519, Network Security and Principle and Practices, Cisco press

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QUESTION 137
What does the established keyword in an extended access-list do?

A. Applies to access-list to an interface.
B. Matches established TCP connection packets.
C. Requires a connection to be established before an access list can be applied.
D. Matches if the TCP datagram has the acknowledgement (ACK) or reset (RST) bits set.

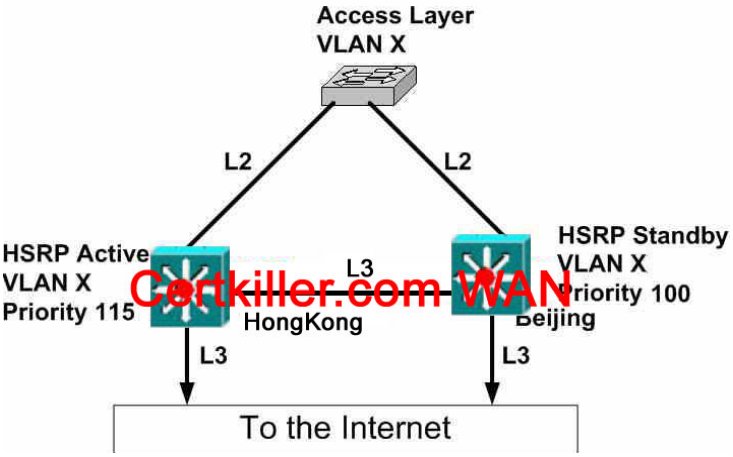
Answer: D

QUESTION 138
Which best describes a common method used for VLAN hopping?

A. Using VTP to configure a switchport to sniff all VLAN traffic
B. Appending an additional tag to an 802.1Q frame such that the switch forwards to packet to the embedded VLAN ID
C. Flooding the VLAN with traffic containing spoofed MAC addresses in an attempt to cause the CAM table to overflow
D. Spoofing the IP address of the host to that of a host in the target VLAN

Answer: B
The double encapsulated VLAN hopping attack takes advantage of the way the hardware on most switches operates. Most switches today perform only one level of IEEE 802.1Q decapsulation. This allows an attacker, in specific situations, to embed a hidden .1Q tag inside the frame, allowing the frame to go to a VLAN that the outer .1Q tag did not specify.

QUESTION 139
Network topology exhibit:



When both L3 links in the HongKong switch fail, all users assigned to VLAN X in the Access Layer switch cannot reach the internel. What would be the best command to fix this problem?

A. standby track
B. standby timer
C. standby authentication
D. standby use-bia
E. standby preempt

Answer: A
Standby track should be on Hong Kong, but standby preempt should be on Beijing
My guess would be A since the rest of the question is asked from the view of the Hong Kong switch.

The standby track command allows you to specify another interface on the router for the HSRP process to monitor in order to alter the HSRP priority for a given group. If the specified interface's line protocol goes down, the HSRP priority is reduced. This means that another HSRP router with higher priority can become the active router if it has standby preempt enabled.

QUESTION 140
What statement is correct regarding Virtual LANs (VLANs)?

A. It is permissible to bridge inside a VLAN, but not to route between VLANs.
B. It is not permissible to bridge inside a VLAN, but it is valid to route between VLANs.
C. It is permissible to bridge inside a VLAN, and to route between VLANs,
D. It is not permissible to bridge inside or route between VLANs.

Answer: C

QUESTION 141
Choose the statement that best describes the correct characteristics pertinent to symmetric or asymmetric keys.

A. Symmetric key cryptography uses two distinct and separate keys for encryption and decryption.
B. Symmetric key cryptography uses a single, shared key for encryption and decryption.
C. Asymetric key cryptography uses the same key for both encryption and decryption.
D. Asymetric key cryptography can only be used for decryption of information.
E. Both asymmetrivc and symmetric key cryptography can only encrypt information.

Answer: B

QUESTION 142
PGP can be used for:

A. Authenticating an email origin.
B. Routing when exchanging large numbers of routers.
C. Installing new software onto a router.
D. File transfer.
E. Encrypting a Telnet session.

Answer: A

QUESTION 143
What is the primary benefit of the "time-to-live" field in the IP header?

A. To improve buffer utilization.
B. To reduce the impact of routing loops.
C. To allow calculation of round-trip delays.

D. To remind us that all earthly jors are fleeting.
E. To avoid delivery of packets that are no longer useful.

Answer: B

QUESTION 144
A new Catalyst switch is in a lab. It is decided that a download of the latest supervisor image is needed, so the switch is connected to the corporate Catalyst switch in the lab through the supervisor gigabit ports that are both in VLAN 100 with a single fiber pair. VLAN 100 only existsed on the two supervisor ports used and only one router existed on that VLAN. Shortly thereafter thousands of complaints are received that users cannot connect to anything on the network.
What command should have been issued on the lab switch prior to connecting to the corporate switch to prevent this problem?

A. clear cam dynamic
B. set spantree uplinkfast enable 1/1
C. set trunk 1/1 desirable isl
D. set vtp mode transparent
E. set port broadcast 1/1 25% unicast enable

Answer: D

QUESTION 145
After adding a new switch to the network it is determined that it is not automatically learning the VLANs via VTP.
What most likely the cause?

A. The other switch is a VTP client.
B. The VTP server has not sent out a peridoci VTP advertisement.
C. There are not yet users on the new switch.
D. The native VLAN on the trunk is VLAN 60.
E. The VTP domain name is misconfigured.

Answer: E

QUESTION 146
What functionality best defines the use of a 'stub' area within an OSPF environment?

A. A stub area appears only on remote areas to provide connectivity to the OSPF backbone.
B. A stub area is used to inject the default route for OSPF.
C. A stub area uses the no-summary keyword to explicitly block external routes, defines the non-transit area, and uses the default route to reach external networks.
D. A stub area is used to reach networks external to the sub area.

Answer: B

Explanation: These areas do not accept routes belonging to external autonomous systems (AS); however, these areas have inter-area and intra-area routes. In order to reach the outside networks, the routers in the stub area use a default route which is injected into the area by the Area Border Router (ABR). A stub area is typically configured in situations where the branch office need not know about all the routes to every other office, instead it could use a default route to the central office and get to other places from there.
Hence the memory requirements of the leaf node routers is reduced, and so is the size of the OSPF database.

QUESTION 147
Which of the following statements regarding RIP v1 is valid? (Choose all that apply.)

A. RIP v1 is a classful routing protocol.
B. RIP v1 is incapable of carrying subnet information in its routing updates.
C. RIP v1 is incapable of supportting Variable Length Subnet Masks (VLSM).
D. RIP v1 can support discontiguous networks.

Answer: A, B, C

Explanation: RIP and IGRP are classful protocols
Why Doesn't RIP or IGRP Support Discontiguous Networks?

QUESTION 148
Which of the following types of traffic is NOT subject to inspection in the IOS Firewall Feature Set?

A. ICMP
B. FTP
C. TFTP
D. SMTP

Answer: A

Explanation: CBAC-Supported applications (Deployable on a modular basis):

QUESTION 149
Exhibit:
S* 0.0.0.0/0 [1/0] via 172.31.116.65
D 172.16.0.0/24 [90/48609] via 10.1.1.1
R 172.16.0.0/16 [120/4] via 192.168.1.4
What will you encounter when a router has the above routers listed in its routing table and receives a packet destined for 172.16.0.45.?

A. The router will not forward this packet, since it is destined for the 0 subnet.
B. The router will forward the packet though 172.31.116.65, since it has the lowest metric.
C. The router will forward the packet through 172.31.116.65, since it has the lowest administrative distance.
D. The router will forward the packet through 10.1.1.1.
E. The router will forward the packet through 192.168.1.4.

Answer: D

Explanation: C= EIGRP and the lowest metric of the routing protocols
R= Rip AD of 120 S* default route The 0.0.0.0 is a default route for packets that dont match the other routes is to be forworded to 172.31.116.65

QUESTION 150
Why should a Route Reflector be used in a BGP environment?

A. Route Reflector is used to overcome issues of split-horizon within BGP.
B. Route Reflector is used to reduce the number of External BGP peers by allowing updates to reflect without the need to be fully meshed.
C. Route Reflector is used to allow the router to reflect updates from one Internal BGP speaker to another without the need to be fully meshed.
D. Route Reflector is used to divide Autonomous Systems into mini-Autonomous Systems, allowing the reduction in the number of peers.
E. None of the above.

Answer: C

Explanation: "Route reflectors are useful when an AS contains a large number of IBGP peers. Unless EBGP routes are redistributed into the autonomous systems' IGP, all IBGP peers must be fully meshed. Route reflectors offer an alternative to fully meshed IBGP peers." CCIE Professional Development Routing TCP/IP Volume II by Jeff Doyle and Jennifer Dehaven Carroll

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QUESTION 151
What reaction can be expected from the host when a router sends an ICMP packet, with the Type 3 (host unreachable) and Code 4 (DF bit set) flags set, back to the originating host?

A. The host should reduce the size of future packets it may send to the router.
B. This scenario is not possible because the packet will be fragmented and sent to the original destination.
C. The sending station will stop sending packets, due to the router not expecting to see the DF bit in the incoming packet.
D. The sending station will clear the DF bit and resend the packet.
E. If the router has an Ethernet interface, this cannot occur because the MTU is fixed at 1500 bytes. Any other interface may legally generate this packet.

Answer: D

Explanation: Another ICMP message warns that a desired host is unreachable becouse of a problem with fragmenting a datagram sending.host.net:icmp:tagret.host unreachable - need to frag (mtu 1500) Network Intrustion Detection third edition by Stephen Northcutt and Judy Novak pg 67

QUESTION 152
Which of the following statements regarding Routing Information Protocol (RIP) is valid?

A. RIP runs on TCP port 520.
B. RIP runs directly on top of IP with the protocol ID 89.
C. RIP runs on UDP port 520.
D. RIP does not run on top of IP.

Answer: C

QUESTION 153
A Certkiller security System Administrator is reviewing the network system log files. He notes the following:
- Network log files are at 5 MB at 12:00 noon.
- At 14:00 hours, the log files at 3 MB.
What should he assume has happened and what should he do about the situation?

A. He should contact the attacker's ISP as soon as possible and have the connection disconnected.
B. He should log the event as suspicious activity, continue to investigate, and take further steps according to site security policy.
C. He should log the file size, and archive the information, because the router crashed.
D. He should run a file system check, because the Syslog server has a self correcting file system problem.
E. He should disconnect from the Internet discontinue any further unauthorized use, because an attack has taken place.

Answer: B

Explanation: This question os much like one from vconsole (see reference)"You should never assume a host has been compromised without verification. Typically, disconnecting a server is an extreme measure and should only be done when it is confirmed there is a compromise or the server contains such sensitive data that the loss of service outweighs the risk. Never assume that any administrator or automatic process is making changes to a system. Always investigate the root cause of the change on the system and follow your organizations security policy." Cisco Certified Internetwork Expert Security Exam V1.7/Vconsole update questions by John Kaberna See ccbootcamp.com

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QUESTION 154
Exhibit:
10.1.1.0/24 through OSPF
10.1.0.0/16 through EIGRP
10.1.0.0&16 static
Which one of the routers would forward a packet destined for 10.1.1.1 if a router had the three routers listed?

A. 10.1.0.0/16 though EIGRP, because EIGRP routes are always preferred over OSPF or static routes.
B. 10.1.0.0/16 static, because static routes are always preferred over OSPF or EIGRP routes.
C. 10.1.1.0/24 through OSPF because the route with the longest prefix is always chosen.
D. Whichever route appears in the routing table first.
E. The router will load share between the 10.1.0.0/16 route through EIGRP and the 10.1.0.0/16 static route.

Answer: C

Explanation: This is a tricky question. If you look at the AD the 0/1 for static/default routes would be chosen first then (90) EIGRP then (110) OSPF So pick your option. I think it is OSPF becouse all static and default routes would be the chosen route.

QUESTION 155
You are the network administrator at Certkiller . The Certkiller network is using two remote LANs that are connected via a serial connection are exchanging routing updates via RIP. An alternate oath exists with a higher hop count. When the serial link fails, users complain of the time it takes to transfer to the alternate path.
How will you be able to ameliorate this situation?

A. Change the hop count on an alternate path to be the same cost.
B. Reduce or disable the holddown timer through the timers basic command.
C. Increase the bandwidth of the alternate serial connection.
D. Configure a static route with an appropriate administrative cost, via the alternate route.

Answer: B

QUESTION 156
What is the reason why file level permissions are not available with Windows 95 shares?

A. Windows 95 is a 16-bit operating system and file level permissions require a 32-bit operating system.
B. Windows 95 machines use FAT partitions and they cannot be upgraded to VFAT which is the NT format.
C. Windows 95 machines is incapable off being configured as network share points.
D. NTFS is not supported in Windows 95 and File level permissions are only available on NTFS partitions.
E. None of the above; File level permissions are configurable only by going to the file properties and selecting "Permissions" on the "Security" tab.

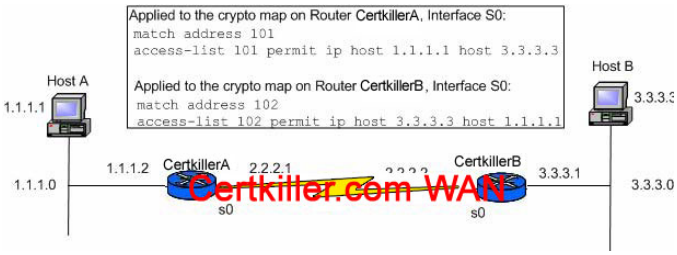
Answer: D

QUESTION 157
A router learns about an IP network via RIP and OSPF.
What mechanism is used for the selection of the preferred route?

A. Default metrics
B. Routing priority
C. Type of service
D. Lambic pentameter
E. Administrative distance

Answer: E

QUESTION 158
Exhibit:



Given the above IPSec scenario which of the following best describes the behavior of the network traffic?

A. All traffic between networks 1.1.1.X and the 3.3.3.X will be blocked, except for traffic between hosts 1.1.1.1 and 3.3.3.3.
B. Traffic between networks 1.1.1.X and 3.3.3.X will flow unencrypted, except for traffic between hosts 1.1.1.1 and 3.3.3.3.
These are the tunnel end points and all traffic between these devices will be encrypted.
C. Most traffic between networks 1.1.1.X and 3.3.3.X will flow unencrypted.
However, the traffic between hosts 1.1.1.1 and 3.3.3.3 will be encrypted on the segment between 2.2.2.1 and 2.2.2.2.
D. Traffic between 1.1.1.1 and 2.2.2.1 will be encrypted, as well as the traffic between 2.2.2.2 and 3.3.3.3.

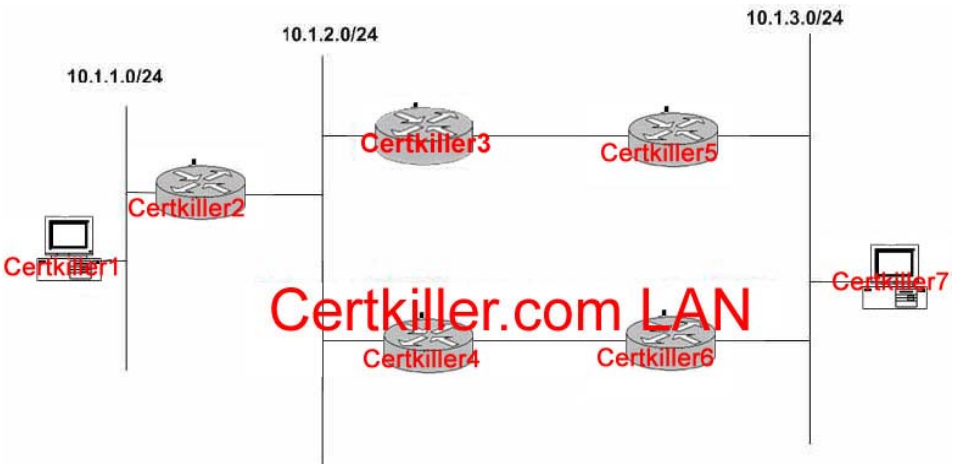
Answer: C
C is the most appropriate answer.
Not B: Router Certkiller A and Router Certkiller B are the tunnel end points.

QUESTION 159
Which of the following represents the correct ways of releasing IBGP from the condition that all IBGP neighbors need to be fully meshed? (Choose all that apply.)

A. Configure route reflectors
B. Configure IBGP neighbors several hops away
C. Configure confederations
D. Configure local preference

Answer: A, C

QUESTION 160
Network topology exhibit.



In this diagram. Host Certkiller 7 is attempting to send a packet to Host Certkiller 1 through Router Certkiller 5. All routers are running EIGRP. And Router Certkiller 5 has installed the following route in its routing table.
10.1.1.0/24 via router Certkiller 6
What will occur when Router Certkiller 5 receives packets from Host Certkiller 7 that are destined for Host Certkiller A?

A. Certkiller 5 cannot have a route to 10.1.1.0/24 through Certkiller 6; so it will always choose the path through Certkiller 3.
B. This is a routing loop; e will forward the traffic to Certkiller 6, and will send the traffic back to Certkiller 5.
C. Router Certkiller 5 will forward the traffic to Router Certkiller 6.
D. Router Certkiller 5 will forward the traffic to Router Certkiller 6 and send a 'host not reachable this direction' ICMP packet to Host Certkiller 7.
E. Router Certkiller 5 will forward the traffic to Router Certkiller 6 and send an ICMP redirect to Host Certkiller 7.

Answer: E
ICMP redirect messages are used by routers to notify the hosts on the data
link that a better route is available for a particular destination.

QUESTION 161
Which of the following statements is NOT accurate regarding frame Relay?

A. Frame Relay does not provide error recovery.
B. Frame Relay provides error detection.
C. Frame Relay is high-speed, shared bandwidth protocol.
D. Frame Relay is based on a "packet-over-circuit" architecture.

Answer: C

QUESTION 162
Within OSPF, what functionality best befines the use of a 'stub' area?

A. It appears only on remote areas to provide connectivity to the OSPF backbone.
B. It is used to inject the default route for OSPF.
C. It uses the no-summary keyword to explicitly block external routes, defines the non-transit area, and uses the default route to reach external networks.
D. To reach networks external to the sub area

Answer: B

QUESTION 163
Network topology exhibit:

Based on the information above, which OSPF configurations listed are valid? (Select two.)

A. Router Certkiller 1
router sopf 1
network 14.0.0.0 0.255.255.255 area 0
Router Certkiller 2
router ospf 1
network 14.0.0.0 0.255.255.255 area 0
B. Router Certkiller 1
router ospf 1
network 14.1.1.0 0.0.0.255 area 0
Router Certkiller 2
router ospf 2
network 14.1.1.0 0.0.0.255 area 0
C. Router Certkiller 1
router ospf 1
network 14.0.0.0 0.0.255.255 area 0
Router Certkiller 2
router ospf 1
network 14.1.0.0 0.0.0.255 area 0
D. Router Certkiller 1
router ospf 1
network 14.1.1.0 0.0.0.255 area 1
Router Certkiller 2
router ospf 1
network 14.1.0.0 0.0.255.255 area 0

Answer: A, B

QUESTION 164
When using MD5 hash authentication with BGP, what part of the BGP packet is used to build the hash?

A. TCP pseudo-header (in the order: source IP address, destination IP address, zero-padded protocol number, and segment length)0
B. The TCP header, excluding options, and assuming a checksum of zero
C. The TCP segment data (if any)
D. An independently-specified key or password, known to both TCPs and presumably connection-specific
E. All of the above

Answer: E
From RFC 2385:
Every segment sent on a TCP connection to be protected against spoofing
will contain the 16-byte MD5 digest produced by applying the MD5 algorithm
to these items in the following order:
1. The TCP pseudo-header (in the order: source IP address, destination IP
address, zero-padded protocol number, and segment length)
2. The TCP header, excluding options, and assuming a checksum of zero
3. The TCP segment data (if any)
4. an independently-specified key or password, known to both TCPs and
presumably connection-specific

QUESTION 165
Is MTU part of the metric calculation of an EIGRP route?

A. No. never
B. Yes, always
C. Only if the appropriate K-value is activated
D. Only the smallest MTU of any links along the path is used with the metric calculation.

Answer: A
EIGRP uses these scaled values to determine the total metric to the network:
metric = [K1 * bandwidth + (K2 * bandwidth) / (256 - load) + K3 * delay] * [K5 / (reliability + K4)]
For default behavior, you can simplify the formula as:
Metric = bandwidth + delay

QUESTION 166
What process will normally occur if an active Main Mode generated Phase One security association times out?

A. Only Quick mode security associations will be generated.
B. Main mode and Quick mode security associations must be generated.
C. Aggressive mode will regenerate new security associations.
D. Only Phase One security associations must be regenerated.
E. No security associations will be regenerated.

Answer: B

QUESTION 167
When using MD5 authentication in BGP where is the hash passed in the IP packet?

A. The payload packet of a BGP request and response.
B. In a TCP header flagged with an option 19.
C. A specially defined BGP authentication packet.
D. In a UDP header flagged with an option 16.
E. In an IP packet flagged with an option 17.

Answer: B
Reference: RFC 2385
3.0 Syntax
The proposed option has the following format:

```
+---------+---------+------------------+
| Kind=19 |Length=18| MD5 digest... |
+---------+---------+------------------+
| |
+--------------------------------------+
| |
+--------------------------------------+
| |
+------------------+------------------+
| |
+------------------+
```

QUESTION 168
Which routing protocols are protected by an authentication mechanism?

A. OSPF
B. RIPv1
C. RIPv2
D. EIGRP
E. BGP

Answer: A, C, D, E

QUESTION 169
Routers CK1 and CK2 are running BGP in the same Autonomous System. Routes from Router CK2 show up in the BGP table of Router CK1 , but not in the routing table of Router CK1 as BGP routes. What might cause this?

A. Synchronization is on but Router CK1 is not receiving the same routes via an internal protocol.
B. Synchronization is off but Router CK1 is not receiving the same routes via an internal protocol.
C. Synchronization is off but the BGP peers are down.
D. Next-hop-self is disabled on Router CK1 .

Answer: A
If your autonomous system is passing traffic from another AS to a third AS, BGP should not advertise a route before all routers in your AS have learned about the route via IGP. BGP will wait until IGP has propagated the route within the AS and then will advertise it to external peers. This is called synchronization.
Reference:
http://www.cisco.com/en/US/tech/ CK3 65/technologies_tech_note09186a00800c95bb.shtml#synch

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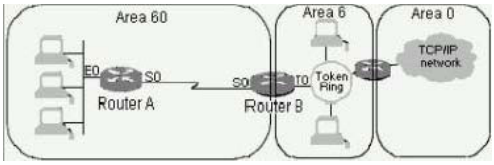
QUESTION 170
Exhibit:



In a reorganization, OSPF areas are realigned. What changes will you advice the Certkiller trainee technician to make to the network and/or router configurations to render this a valid network design? (Select two.)

A. The trainee should configure Router B as an Area Border Router between Area 60 and area 6.
B. The trainee should configure a virtual link between Area 60 and Area 0.
C. The trainee should install a serial line or other physical connection between devices in Area 60 and Area 0.
D. This design is not a valid, and no changes can make it work.

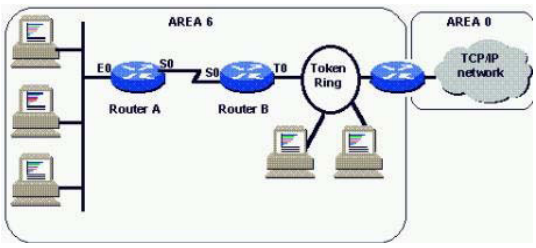
Answer: B, C

QUESTION 171
You are the Certkiller network administrator. Two remote LANs connected via a serial connection are exchanging routing updates via RIP. An alternate path exists with a higher hop count. When the serial link fails, you receive complaints of users regarding the time it takes to transfer to the alternate path. How will you ameliorate this situation?

A. You could change the hop count on an alternate path to be the same cost.
B. You could reduce or disable the holdown timer by making use of the timers basic command.
C. You could increase the bandwidth of the alternate serial connection.
D. You could configure a static route with the appropriate administratice cost via the alternate route.

Answer: B

QUESTION 172
Exhibit:



In a move to support standards-based routing, the decision is made to use the OSPF routing protocol throughout the entire Certkiller network. The areas are shown as in the exhibit, and the subnets are:
Ethernet on Router A: 108.3.1.0
Serial line between Router A and Router B: 108.3.100.0
Token ring on Router B: 108.3.2.0
How would you advice the new Certkiller trainee technician to configure OSPF on Router B?

A. router ospf 1
network 108.3.100.0 255.255.255.0 area 6
network 108.3.2.0 255.255.255.0 area 6
B. router ospf
network 108.3.0.0
C. router ospf 1
network 108.3.100.0 0.0.0.255 area 6
network 108.3.2.0 0.0.0.255 area 6
D. router ospf 1
network 108.3.100.0 0.0.0.255 area 6
network 108.3.2.0 0.0.0.255 area 0
E. router ospf 1
network 108.3.1.0 0.0.0.255 area 6
network 108.3.100.0 0.0.0.255 area 6
network 108.3.2.0 0.0.0.255 area 6

Answer: A

Explanation: Networks 108.3.100.0 and 108.3.2.0 using a /24 need to be put into the ospf statement. both are configured in area 6. the ethernet network on router A will be given to router B by rotuer A so there is no need to insert the network statement for it.

QUESTION 173
When a user initiales a dailup PPP logon to a Cisco router running RADIUS, what attributes are sent to the RADIUS server for authentication? (assume a PAP password)

A. Username (1), user service (7), PAP Password (8)
B. Username (1), user service (7), Filter ID (11), Login port(16), reply message (18), Vendor Specific Attribute (26)
C. Username (1), CHAP password (3)
D. Username (1), PAP Password (2), NAS-ip (4), NAS-port (5), NAS port type (61), user service (7), framed protocol (6)

Answer: D

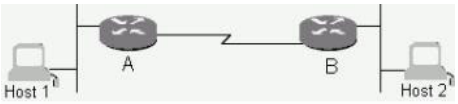
QUESTION 174
The newly appointed Certkiller trainee technician want to know what is the best explanation for the command aaa authentication ppp default if-needed tacacs+. What will your reply be?

A. Use TACACS+ to perform authentication if authentication has been enabled on an interface.
B. Use TACACS+ to perform authentication if the user requests authentication.
C. Do not run PPP authentication if the user has already been authenticated by some other method.
D. Do not run PPP authentication if the user is not configured to run PPP authentication.
E. Do not run PPP authentication if the user knows the enable password.

Answer: C

Explanation: if-needed (Optional) Used with TACACS and extended TACACS. Does not perform CHAP or PAP authentication if the user has already provided authentication. This option is available only on asynchronous interfaces.

QUESTION 175
Exhibit:



Host 1 and Host 2 are on Ethernet LANs in different building. A serial line is installed between two Cisco routers using Cisco HDLC serial line encapsulation. Routers A and B are configured to route IP traffic. Host 1 sends a packet to Host 2. A line hit on the serial line causes an error in the packet.
How is a retransmission sent when this spesific error is detected?

A. Host 1
B. Host 2
C. Router A
D. Router B
E. Protocol analyzer

Answer: C

QUESTION 176
Under which circumstances will the Diffie-Hellman key exchange allows two parties to establish a shared secret key? (Choose all that apply.)

A. Over an insurance medium.
B. After ther terminiation of a secure session.
C. Prior to the initiation of a secure session.
D. After a session has been fully secured.
E. During a secure session over a secure medium.

Answer: A, B, C

Explanation: DH is used over a insecure medium

QUESTION 177
Exhibit:
aaa new-model
aaa authentication login default local
aaa authentication exec default local
username abc privilege 5 password xyz
privilege exec level 3 debug ip icmp
What will happen when user ABC Telnets to the router and tries to debug ICMP if a router has been configured as shown above? (Choose all that apply.)

A. The user will be locked out due to the aaa new-model command being enabled and no TACACS server defined.
B. The user can gain entry with a local username/password at Level 5 and run the debug ip icmp command unchallenged.
C. The user can gain entry with the local username/password, but no debug commands will be carried out because command authorization will fail.
D. The user can gain entry with the local username/password at Level 5, but cannot use any commands because none are assigned at Level 5.

Answer: B

Explanation: To understand this example, it is necessary to understand privilege levels. By default, there are three command levels on the router. privilege level 0 - includes the disable, enable, exit, help, and logout commands privilege level 1 - normal level on Telnet; includes all user-level commands at the router> prompt privilege level 15 - includes all enable-level commands at the router# prompt username john privilege 9 password 0 doe - He can configure snmp-server community because configure terminal is at level 8 (at or below level 9), and snmp-server community is level-8 command.

QUESTION 178
Which of the following commands must be present on the router (exact syntax would depend on the version) for the user with priviledge level 15 (as defined in their TACACS+ profile) to be dropped into enabled mode immediately when that user telnets into a Cisco router?

A. The global command: aaa authorization exec [default] [group] tacacs+
B. The line command: logon authorization tacacs+
C. The global command: privilege 15 enable
D. The global command: aaa authentication enable default tacacs+

Answer: D

QUESTION 179
Which of the following commands will result in the NAS to use the IP assignment sent from the RADIUS server for a remote PPP peer?

A. aaa authorization default address radius
B. aaa authorization default network radius

C. aaa authentication ppp default radius
D. aaa authorization default ipcp radius
E. none of the above

Answer: C

QUESTION 180
Which of the following statements would be valid when an UDP packet has to be fragmented?

A. All fragments hold the UDP header, so that access-lists that look at ports would be usable.
B. The first fragment holds only the UDP header, not the UDP data.
The UDP data is transmitted in the subsequent fragments.
C. Only the first fragment has the UDP header.
D. None of the above.

Answer: D

QUESTION 181
Which of the following controls Multilink PPP authorization in Cisco Secure?

A. The <lcp multilink> command
B. Bandwidth Allocation Protocol
C. The <password multilink> command
D. Token caching

Answer: C

QUESTION 182
You are the network administrato at Certkiller . Your newly appointed Certkiller trainee wants to know what the first step in establisning PPP communications over a link is.
What will your reply be?

A. The switch sends NCP frames to negotiate parameters such as data compression and address assignment.
B. The originating node sends configuration request packets to negotiate the LCP layer.
C. One or more Layer 3 protocols are configured.
D. The originating node sends Layer 3 data packest to inform the receving node's Layer 3 process.
E. The receving node performs PPP authentication on the node dialong in.

Answer: B

QUESTION 183
In IP multicast networks, the Reverse Path Forward (RPF) check is primarily used to:

A. Determine which interfaces should be including in the outgoing interface list.
B. Prevent multicast traffic from looping through the network.
C. Prevent multicast traffic from being sent by unauthorized sources.

D. Establish the reverse flow path of multicast traffic from the receiver to the source.

Answer: B
This RPF check helps to guarantee that the distribution tree will be loop free.
Reference:
http://www.cisco.com/en/US/tech/ CK8 28/tech_brief09186a00800a4415.html

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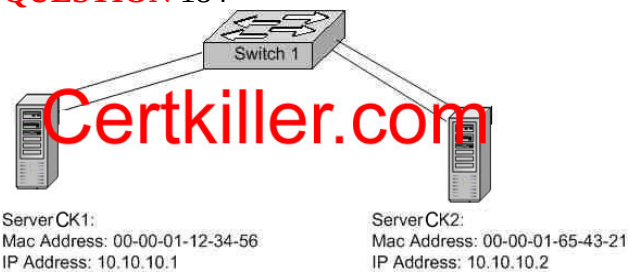
QUESTION 184



What is correct about the configuration of the Switch with regards to the channeling?

A. Both channels should be given the same channel-ID.
B. Load balancing traffic over the channel for traffic between two servers will not work.
C. Spanning Tree needs to be disabled on the VLAN for the channel to come up.
D. Channeling to a server is not supported.

Answer: D

QUESTION 185
Multicast addresses in the range of 224.0.0.0 through 224.0.0.244 are reserved for:

A. Administratively Scoped multicast traffic that is intended to reamin inside of a private network and is never intended to be transmitted into the Internet.
B. Global Internet multicast traffic intended to travel throughout the Internet.
C. Link-local multicast traffic consiting of network control messages that never leave the local subnet.
D. Any valid multicast data stream.

Answer: C
The IANA has reserved addresses in the 224.0.0.0 through 224.0.0.255 to be used by network protocols on a local network segment
Reference:
http://www.cisco.com/en/US/tech/ CK8 28/tech_brief09186a00800a4415.html

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QUESTION 186
Which of the following is a primary difference between ISDN and iDSL?

A. ISDN is a circuit switched service and iDSL is a dedicated service that uses the physical layer of ISDN.
B. ISDN can be used on the same pair of wires as an analog POTS circuit, but iDSL cannot.
C. An iDSL circuit can call a switched 56k circuit, but ISDN cannot.
D. iDSL has two D channels and ISDN has one D channel.

Answer: A

QUESTION 187
The Certkiller network administrator was requested to make a script with the following criteria:
- Must be owned by the root and executable by a group of users other than the root.
- Must not give other users root privileges other than execution of the script.
- Must not allow the users to modify the script.
Which of the following would be the best way to accomplish this task?

A. Having the root use 'chmod 4755 <name_of_script>' to make it readable and executable by non-root users or the use 'chmod u-s <name_of_script>'.
B. By having the users logged in under their own ID's, typing 'su' and inputting the root password after they have been given the root password, then executing the script.
C. Changing permissions to read-write and changing ownership of the script to the group.
D. By having root use 'chmod u-s <name_of_script>'.

Answer: A

QUESTION 188
What is the purpose of BRI ISDN D channels?

A. Data transfer
B. Loopbacks
C. Control signals
D. None of the above

Answer: C

QUESTION 189
The newly appointed Certkiller trainee technician wants to know when it would be wise to decrease the security association lifetime on a router.
What will your reply be?

A. To ease the workload on the router CPU and RAM.
B. To give a potential hackler less time to dechiper the keying.
C. To improve Perfect Forward Secrecy (PFS).
D. If the lifetime of the peer router on the other end of the tunnel is shorter, the lifetime on the local router must be decreased so that the SA lifetime of both routers is the same.
E. None of the above.

Answer: D

QUESTION 190
You are performing device management with a Cisco router. Which of the following is true?

A. The Cisco Secure Intrustion Detection System sensor can apply access-list definition 198 and 199 (default) to the router in response to an attack signature.
B. The Cisco Secure Intrustion Detection System sensor can shut down the router interface in response to an attack signature.
C. The Cisco Secure Intrustion Detection System sensor can emit an audible alarm when the Cisco router is attached.
D. The Cisco Secure Intrustion Detection System sensor can modify the routing table to divert the attacking traffic.

Answer: A

QUESTION 191
In the context of Network Security, which of the following best describes the term 'contermeasure'?

A. A policy, procedure or technology that protects a computer or network against a given vulnerability or exploit.
B. Technology that legally permits you to launch a counter attack against someone who is attacking your network.
C. A plan to identify intruders on your system.
D. A plan to close all possible vulnerabilities on your network.

Answer: A

QUESTION 192
What is NOT a TACACS+ password authentication type?

A. PAP
B. CHAP
C. ARAP
D. LCP

Answer: D
Link control protocol (LCP) is not used for authentication

QUESTION 193
Which three methods best describe a secure wireless LAN implementation?

A. Deploy WEP using a static 128 bit key.
B. Deploy dynamic key management.
C. Deploy mutual authentication between access point and client.
D. Deploy mutual authentication between authentication server and client.
E. Disable ad hoc mode.
F. Enable MAC authentication.

Answer: A, B, D
Reference:

http://www.cisco.com/en/US/netsol/ns340/ns394/ns171/ns128/networking_solutions_white_paper09186a008009c8b3.shtml

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QUESTION 194
When defining a crypto ISAKMP policy, what are "Group 1" and "Group 2"?

A. Group 1 is 768-bit Diffie-Hellman exchange, Group 2 is 1024-bit Diffie-Hellman exchange.
B. Group 1 does not have Perfect Forwared Secrecy (PFS), Group 2 includes PFS.
C. Group 1 is 1024-bit Diffie-Hellman exchange, Group 2 is 2048-bit Diffie-Hellman exchange.
D. The numbers in the 'Group #' refer to the standard access-list which must also be defined.

Answer: A
Reference:
http://www.cisco.com/en/US/products/sw/iosswrel/ps1834/products_feature_guide09186a0080080161.html#xtocid15

QUESTION 195
When using a sniffer directly connected to an access switch, the sniffer sees an excessive amount of BPDUs with the TCA bit set. Which are the most likely explanations?

A. There are no problems in the network.
B. Ports connecting to workstations do not have spanning tree portfast configured.
C. Bad cabling is being used in the network.
D. The CPU utilization on the root switch is getting up to 99% and thus not sending out any BPDUs.

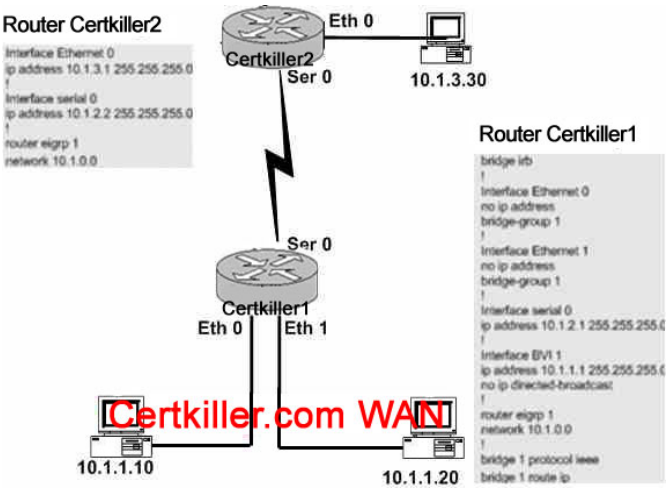
Answer: B
When a switchport is configured for portfast, the switch never generates a TCN (topology change notification) when a port configured for portfast is going up or down. A TCN causes the root bridge to send out a TCA (topology change acknowledgement).

QUESTION 196
What is the purpose of ICMP messages?

A. To check ARP and routing tables
B. To report error and control messages
C. To check reliability, delay, and forwarding rate of LAN traffic
D. To generate management messages to gather statistics
E. To carry link-state announcement information for OSPF

Answer: B
From RFC 792: The purpose of ICMP control messages is to provide feedback about problems in the communication environment. The ICMP messages typically report errors in the processing of datagrams.

QUESTION 197
Exhibit



Assume this network has just been brought up. If a user on device 10.1.1.10 pinged device 10.1.3.30 how would Router A forward the ICMP's?

A. Router A would forward the ICMP's out both serial 0 and Ethernet 1.
B. Router A would only forward the ICMP's out Ethernet 1.
C. Router A would only forward the ICMP's out Serial 0.
D. Router A would not forward the ICMP out any interface.

Answer: C

QUESTION 198
Which methods can be used to encrypt all communication between a client and a Cisco router (Select two.)

A. RADIUS
B. Secure-shell
C. Kerberized telnet
D. TACACS
E. XTACACS

Answer: B, C

QUESTION 199
What is the main difficulty facing exploit software when trying to hijack a TCP session?

A. Spoofing a soruce address.
B. Hopping a VLAN to get in-line with the connection.
C. Calculating the sequence number.
D. Injecting their IP address as a default gateway.
E. Converting the TCP packet to UDP for easier injection.

Answer: C

QUESTION 200
Which of the following is a description of the principle on which a Denial of Service (DoS) attack works?

A. MS-DOS and PC-DOS operating systems using a weak security protocol.
B. Overloaded buffer systems can easily address error conditions and respond appropriately.
C. Host systems are incapable of responding to real traffic, if they have an overwhelming number of incomplete connections (SYN/RCVD State).
D. All CLIENT systems have TCP/IP stack compromisable implementation weaknesses and permit them to launch an attack easily.
E. A server ceases accepting connections from certain networks as soon as they become flooded.

Answer: C

Explanation: Denial-of-service (DOS) attacks might attempt o starve a host of reasources needed to function correctly.
Network Intrustion Detection third edition by Stephen Northcutt and Judy Novak pg 93

QUESTION 201
The newly appointed Certkiller trainee technician wants to know Global deployment of RFC 2827 (ingress and egress filtering) would help mitigate what classification of attack. What will your reply be?

A. Sniffing attack
B. Denial of service attack
C. Spoofing attack
D. Reconnaissance attack
E. Port Scan attack
F. All of the above.

Answer: C

Explanation: Network Ingress Filtering- Defeating Denial of Service Attacks which employ IP Source Address Spoofing

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QUESTION 202
The CEO of Certkiller want to know which security programs can effectively protect your network against password sniffer programs? (Choose three.)

A. IPSec, due to it encrypting data.
B. RLOGIN, because it does not send passwords.
C. Kerberos, due to encrypt password abilities.
D. One time passwords, because the passwords always change.
E. Use of POP e-mail, because it is better than using SMTP.

Answer: A, C, D

QUESTION 203
Which describe the default rules of a host version of the Cisco Security Agent? Select three.

A. It prevents writing to the system directory.
B. It provides deep packet inspection to prevent internet worms.
C. It prevents updates to the system registry.
D. It stops unauthorized systems from initiating network connections to the CSA protected host.
E. It provides stateful inspection to prevent mail and web viruses.
F. It communicates with Network Intrustion Detection to stop network based attacks.

Answer: B, Pending. Send your suggestion to feedback@ Certkiller .com

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QUESTION 204
MPPE (Microsoft Point to Point Encryption):

A. Is the Microsoft implemention of RFC's 2409 and 2402
B. Has an encryption keying mechanism that is independent of the user's password
C. Uses the RC4 encryption algorithm
D. Uses 768 or 1024-bit encryption keys

Answer: C
MPPE uses the RSA RC4 algorithm to provide data confidentiality.

QUESTION 205
Global deployment of RFC 2827 would help mitigate what classification of attack?

A. Sniffing attack
B. Denial of service attack
C. Spoofing attack
D. Reconnaissance attack
E. Prot Scan attack

Answer: C
RFC 2827 - Network Ingress Filtering: Defeating Denial of Service Attacks which employ IP Source Address Spoofing

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QUESTION 206
The primary benefit of RSA encrypted nonces over RSA signatures is:

A. The do not require a certificate authority.
B. The offer repudiation.
C. They are not subject to export control
D. There is better scalability for multiple peers.

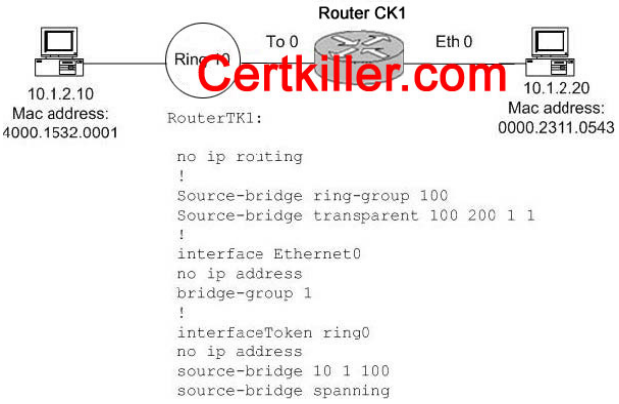
Answer: A
Not B, D: B & D are RSA signature benefits.

QUESTION 207
When a TCP segment is lost, the TCP sender reacts by: (Multiple answer)

A. Resending the segment.
B. Increasing the window size.
C. Resetting the session.
D. Increasing the amount of time it will wait, when timing out the next segment that is sent.

Answer: A, D

QUESTION 208

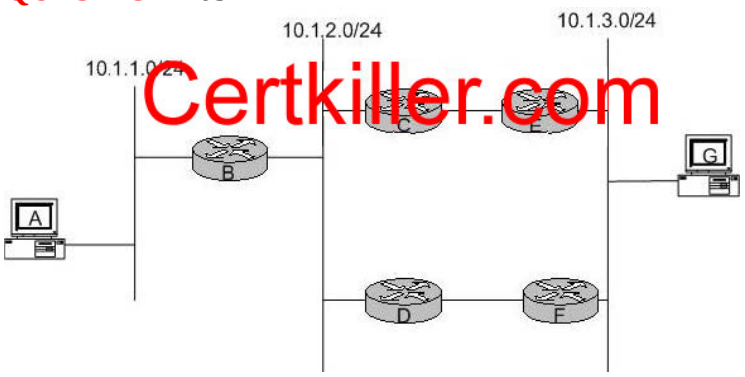


If a non source route ARP Requests is sourced by 10.1.2.10 destinted to 10.1.2.20, based on the configuration of Router CK1 , what would it do with the frame?

A. Router CK1 would foreward the ARP request to the Ethernet interface without changing anything within the frame.
B. Router CK1 would bitswap the MAC addresses then forward the frame out of the Ethernet.
C. Router CK1 would not forward the frame since it is not source routable.
D. Router CK1 would cache the Routing Information Field (RIF), bitswap the MAC addresses then forward the frame out the Ethernet.

Answer: A
When a bridge connection is source-route switching, non-source-route frames are forwarded based on the destination address. However, the router does a bitswap on MAC addresses from Ethernet to Token Ring and from Token Ring to Ethernet.
Reference:
http://www.cisco.com/en/US/tech/ CK3 31/ CK6 60/technologies_tech_note09186a00800947b2.shtml

QUESTION 209



Routers E and F are configured for HSRP (Hot Standby Routing Protocol). E has a priority of 100, while F has a priority of 50. At one point, when E is the active router. It fails, and F takes over as the active router. A few minutes later. E returns to service.
What will happen?

A. F will remain the active router, there is noy way for E to become the active router again unless F fails.
B. E and F will negotiate which router should be active based on their IP addresses.
C. E will always take ober the active role, there is no way for F to remain active once another router with a higher priority is on the network.
D. E will become the active router, if it is configured to preempt.
E. F will remain the active router because having a lower priority is better.

Answer: D

QUESTION 210
A router is connected to a serial link with a protocol MTU of 512 bytes.
If the router receives an IP packet containing 1024 bytes, it will: (Select two)

A. Always drop the packet.
B. Fragment the packet, also, the router at the other side of the serial link will reassemble the packet.
C. Drop the packet if the DF bit is set.
D. Fragment the packet and sent it, also, the destination will reassemble the packet when it arrives.

Answer: C, D
Sometimes a router will have a link with a large (1500 byte) MTU, but the router is unable to deliver a datagram of that size over that link. That router will not return a "Fragmentation needed but DF set" ICMP error to the sender, because the link does not actually have a small MTU. However, large datagrams will be unable to pass through the link. Therefore, PMTUD will not help, and all large-packet transmission attempts through this link will fail.

QUESTION 211
What statement is true concerning Multilayer Switching?

A. The first packet in every flow will be forwarded by the MLS Switching Engine.
B. The first packet in every flow will be forwarded by the MLS Route Processor.
C. Every 10th packet in every flow will be redirected to the MSL Route Processor.

D. Every 10th packet in every flow will be forwarded by the MLS Route Processor.
E. All traffic will be forwarded by the MLS Swicthing Engine.

Answer: B

QUESTION 212
Traceroute does not work on Host A (a Unix workstation) to the Internet. Currently, there is an inbound access-list applied to the serial interface on Router 1 that says "access-list 101 permit tcp any any".
What access-list entry may need to be added in order to get traceroute to work?

A. access-list 101 permit udp any any
B. access-list 101 permit icmp any any time-exceeded
access-list 101 permit icmp any any port-unreachable
C. access-list 101 permit icmp any any time-exceeded
access-list 101 permit icmp any any net-unreachable
D. access-list 101 permit icmp any any echo
access-list 101 permit icmp any any net-unreachable
E. access-list 101 permit udp any any
access-list 101 permit icmp any any protocol-unreachable

Answer: B
Traceroute sends UDP datagrams to the destination host, but it chooses the destination UDP port number to be an unlikely value (larger than 30,000), making it improbable that an application at the destination is using that port. This causes the destination host's UDP module to generate an ICMP "port unreachable" error (Section 6.5) when the datagram arrives. All Traceroute needs to do is differentiate between the received ICMP messagestime exceeded versus port unreachable-to know when it's done.
Reference:
http://www.starlet.spb.ru/tcp_stivens_book/tracerou.htm#8_0

QUESTION 213
Below are four 'out" access-lists, configured on an interface.
What list will block an IP packet with source address 144.23.67.94, destination address 197.55.34.254, destination TCP port 23 from leaving the routr?

A. access-list 100 deny ip tcp 144.23.67.0 0.0.0.7 eq telnet 197.55.34.240 0.0.0.15 eq telnet
access-list 100 permit ip any any
B. access-list 100 deny tcp 144.23.67.94 0.0.0.7 any eq telnet
access-list 100 permit ip 197.55.34.240 0.0.0.15 eq telnet any
C. access-list 100 deny tcp 144.23.67.96 0.0.0.7 eq telnet 197.55.34.240 0.0.0.15
access-list 100 permit ip any any
D. access-list 100 deny ip 144.23.67.94 0.0.0.7 host 144.23.67.94
access-list 100 permit ip any any

Answer: B

QUESTION 214
How would you say PIX is acting like when the PIX firewall is not configured with a static/conduit to permit explicit access from the outside to the inside and data sent to inside addresses result in the firewall dropping the packets sent to it?

A. A black hole router
B. A brouter
C. A bridge
D. A router
E. None of the above

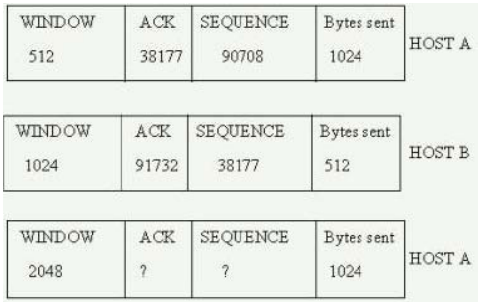
Answer: E

QUESTION 215
The addresses on the inside of a packet-filtering router are configured from the network 10.0.0.0/8. Which of the following access-list entries on the outside gateway router would prevent spoof attacks to this network?

A. access-list 101 deny ip 10.0.0.0 0.0.0.255 0.0.0.0 255.255.255.255
B. access-list 101 deny ip 10.0.0.0 255.0.0.0 0.0.0.0 0.0.0.0
C. access-list 101 deny ip any 10.0.0.0 255.255.255
D. access-list 1 deny 10.0.0.0
E. access-list 101 deny ip 10.0.0.0 0.255.255.255 any

Answer: E

QUESTION 216
Exhibit:



Host A and B are communicating by aing use of TCP. A packet is sent from A to B, B replies back to A, and A acknowleges B's reply. Selected information from this dialogue is shown.
Based on the information provided what will be the correct values for the final acknowledgment from A:

A. Ack=38689 Seq=91734
B. Ack=38689 Seq=91732
C. Ack=38700 Seq=91633
D. Ack=38690 Seq=91733

Answer: D

QUESTION 217
The newly appointed Certkiller trainee technician wants to know how a route running Certificate Enrollment Protocol (CEP) obtains a certificate. What will your reply be?

A. The router administrator should send an e-mail message to 'sysadmin@icsa.net'.
This message should request a certificate and include the FQDN of the device.
B. If using Cisco IOS version 11.3 or 12.0, the router administrator should enter the following configuration:
crypto ca identity <registered_ca_name> enrollment ftp://
<certificate_authority>
C. The router administrator has to copy the certificate from the peer router at the other end of the tunnel and then paste it onto the local router.
D. If using Cisco IOS version 11.3 or 12.0, the router administrator should enter the following configuration:
crypto ca identify <registered_ca_name> enrollment http://
<certificate authority>

Answer: D

QUESTION 218
What is the primary benefit of RSA encrypted nonces over RSA signatures?

A. RSA encrypted nonces offer repudiation.
B. RSA encrypted nonces are not subjected to export control.
C. There is better scalability to multiple peers.
D. RSA encrypted nonces does not require a certificate authority.

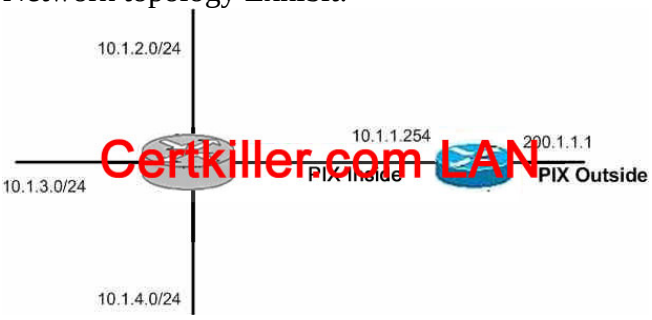
Answer: D

QUESTION 219
What are the two options for OSPF authentication methods in PIX OS?

A. Kerberos
B. Area
C. Password
D. Tacacs+
E. MD5
F. Radius

Answer: C, E
Q. Are OSPF routing protocol exchanges authenticated? Yes, OSPF can authenticate all packets exchanged between neighbors. Authentication may be through simple passwords or through MD5 cryptographic checksums.

QUESTION 220
Network topology Exhibit:



After viewing the PIX syslog output below, what answer best describe what MAY be going on in the network? (Assume three network on the inside of the PIX all with private addresses and the outside is connected to the internet).
14:25:02 10.1.1.1.254 : %PIX-7-710005: TCP request discarded from 88.3.62. 119/57088 to inside : 10.1.1.254/www
14:25:02 10.1.1.1.254: %PIX-7-710005: TCP request discarded from 169.236.78.115/56832 to inside:10.1.1.254/www
14:25:02 10.1.1.1.254 : %PIX-7-710005: TCP request discarded from 7.237.99.75/56576 to inside: 10.1.1.254/www
14:25:02 10.1.1.1.254 : %PIX-7-710005: TCP request discarded from 211.39.49.98/56320 to inside 10.11.254/www
14:25:02 10.1.1.1.254 : %PIX-7-710005: TCP request discarded from 96.126.207.4/56064 to inside: 10.11.254/www
14:25:02 10.1.1.1.254 : %PIX-7-710005: TCP request discarded from 70.175.181.20/55808 to inside: 10.1.1.254/www
14:25:02 10.11.1.254 : %PIX-7-710005: TCP request discarded from 200.230.90.97/55552 to inside: 10.1.1.254/www
14:25:02 10.11.1.254 : %PIX-7-710005: TCP request discarded from 208.240.228.30/55296 to inside: 10.1.1.254/www

A. A port scan is being launched from the inside network.
B. Several IP addresses on the inside have all launched an attack against the PIX web server.
C. A host on the inside has launched a denial of service attack generating random source addresses and aimed at the PIX inside interface.
D. A host on the inside has been compromised and is attempting to long onto the PIX http server.
E. Several zombies hosts have been activated on the outside of the PIX and are trying to crash the PIX HTTP server.

Answer: E
This message indicates traffic coming from the outside that doesn't have a request to match the packet:
%PIX-7-710005:This message appears when the firewall does not have a UDP server that services the UDP request. The message can also indicate a TCP packet that does not belong to any session on the firewall.

QUESTION 221
Which command allow a PIX Firewall to be configured for a dual NAT environment? Select two,.

A. alias
B. nat [(ifname0} 0 access-list
C. sysopt permit dnat
D. NAT (outside)
E. Pat [(ifname)] 0 access-list

Answer: A, C
The alias command is used on the PIX to dminister overlapping addresses with dual NAT.
'sysopt permit dnat' command is deprecated starting in PIX Firewall version 6.2.

QUESTION 222
PIX is capable of running which routing protocols?

A. OSPF
B. RIPv1
C. RIPv2
D. EIGRP
E. BGP

Answer: A, B, C

QUESTION 223
The Certkiller network manager ascertained that security has been breached on a router or PC client and thus wants to revoke the CA certificate. What should he/she do to accomplish this?

A. type: configure terminal crypto ca revoke <name> if there is a router involved.
B. Contact the CA administrator and be prepared to provide the challenge password chosen upon installation.
C. Uninstall the IPSec software on the PC, erase the router configuration and reconfigure the router, and request the certificate in the same way as the initial installation (Issuance of the new certificate will revoke the old one by default).
D. Send e-mail to 'sysadmin@icsa.net' with the hostname and IP of the compromised device requesting certificate revocation.

Answer: B

Explanation: If you lose the password, the CA administrator may still be able to revoke the PIX Firewall's certificate, but will require further manual authentication of the PIX Firewall administrator identity.

QUESTION 224
The newly appointed Certkiller trainee technician wants to know what an Inter Switch Link (ISL) is. What will your reply be?

A. An ISL is a protocol to inerconnect switches across ATM only.
B. An ISL is a Cisco proprietary protocol for interconnecting multiple switches.
C. An ISL is a protocol to interconnect switches across FDDI only.
D. An ISL is an IEEE protocol to interconnect multiple switches.
E. An ISL is an IEEE protocol to interconnect multiple switches across Fast Ethernet.

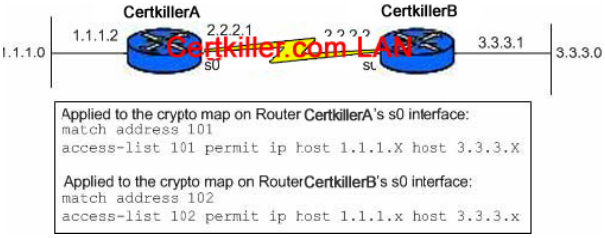
Answer: B

QUESTION 225
Which of the following commands will permit a PIX Firewall to be configured for a dual NAT environment? Select two.

A. nat [(ifname)] 0 access-list
B. sysopt permit dnat
C. alias
D. bidirectional nat
E. pat [(ifname)] 0 access-list

Answer: B, C
'sysopt permit dnat' command is deprecated starting in PIX Firewall version 6.2.
The alias command is used on the PIX to dminister overlapping addresses with dual NAT.

QUESTION 226
Exhibit:



What will happen when a user attempts to telnet from nework 1.1.1.X to network 3.3.3.X when taking the IPSec example and IPSec with IKE as shown, into account?

A. The telnet will succeed with decrypted traffic only.
B. The telnet will succeed and the traffic will be directionally encrypted.
C. The telnet will fail due to assymmetric access lists.
D. The telnet will fail because access-list 101 should have been applied to router A's interface 1.1.1.2.

Answer: C

QUESTION 227
Network Address Translation (NAT) may not work well:

A. With outbound HTTP when AAA authentication is involved
B. When PAT (Port address Translation) is used on the same firewall
C. When used in conjunction with static IP address assignment to some devices

D. With traffic that carries source and/or destination IP addresses in the application data stream
E. With ESP Tunnel mode IPSec traffic.

Answer: D

QUESTION 228
What is the benefit of using Secure Shell instead of Telnet?

A. If offers native accounting.
B. It requires IPSec.
C. It qualifies for C1 security under TCSEC guidelines.
D. It provides encrypted sessions
E. It offers increased key length of encryption.

Answer: D

QUESTION 229
When configuring IOS NAT (Network Address Translation,) what keyword is used to specify Port Address Translation?

A. pat
B. port
C. extended
D. overload
E. netmask 255.255.255.255

Answer: D

QUESTION 230
There are certain IP unicast address ranges (10.0.0.0/8. 192.168.0.0/16. etc. [RFC 1918]) that are reserved for private use, and should not be used on the internet, similarly, there is group of multicast group addresses that are served for private use and should not be used on the internet (RFC 1700). What is that group of addresses?

A. 224.0.0.0-224.255.255.255
B. 255.0.0.0-255.255.255.255
C. 232.0.0.0-232.255.255.255
D. 239.0.0.0-239.255.255.255
E. All of the above

Answer: D

QUESTION 231
Exhibit:

Router Certkiller1

```
crypto isakmp policy 4
 authentication pre-share
crypto isakmp key xxxxxx1234 address 100.228.202.154
crypto ipsec transform-set encrypt-des esp-des
crypto map ipsecmap 20 ipsec-isakmp
 set peer 100.228.202.154
 set transform-set encrypt-des
 match address 106
!
interface Serial0
 ip address 100.192.202.249 255.255.255.252
 ip nat outside
 crypto map ipsecmap
!
interface FastEthernet0
 ip address 192.168.1.1 255.255.255.0
 ip nat inside
!
ip nat inside source route-map ipsecnat interface Serial0 overload
ip classless
ip route 0.0.0.0 0.0.0.0 100.232.202.209
ip route 192.168.2.0 255.255.255.0 100.232.202.209
!
access-list 106 permit ip 192.168.1.0 0.0.0.255 192.168.2.0 0.0.0.255
access-list 150 deny ip 192.168.1.0 0.0.0.255 192.168.2.0 0.0.0.255
access-list 150 permit ip 192.168.1.0 0.0.0.255 any
!
route-map ipsecnat permit 10
 match ip address 150
```


Router Certkiller2

```
crypto isakmp policy 4
 authentication pre-share
crypto isakmp key xxxxxx1234 address 100.232.202.210
crypto ipsec transform-set encrypt-des esp-des
crypto map ipsecmap 7 ipsec-isakmp
 set peer 100.232.202.210
 set transform-set encrypt-des
 match address 106
!
interface Serial0
 ip address 100.228.202.154 255.255.255.252
 ip nat outside
 crypto map ipsecmap
!
interface FastEthernet0
 ip address 192.168.2.1 255.255.255.0
 ip nat inside
!
ip nat inside source route-map ipsecnat interface Serial0 overload
ip classless
ip route 0.0.0.0 0.0.0.0 100.228.202.153
ip route 192.168.1.0 255.255.255.0 100.228.202.153
!
access-list 106 permit ip 192.168.2.0 0.0.0.255 192.168.1.0 0.0.0.255
access-list 150 deny ip 192.168.2.0 0.0.0.255 192.168.1.0 0.0.0.255
access-list 150 permit ip 192.168.2.0 0.0.0.255 any
!
route-map ipsecnat permit 10
 match ip address 150
```


Give the configuration shown, what is the expected behavior of IP traffic traveling form the attached client to the two Ethernet subnets? (Select two)

A. Traffic will not successfully access the internet or the subnets of the remote router's Ethernet interface.
B. Traffic between the Ethernet subnets on both routers will be encrypted.
C. Traffic bound for the internet will be translated by NAT and will not be encrypted.
D. Traffic will be translated by NAT between the Ethernet subnets on both routers.
E. Traffic bound for the internet will not be routed because the source IP addresses are private.

Answer: B, C

QUESTION 232
What is the primary reason for using NAT translation on a firewall?

A. To translate RFC 1918 addresses for access to the Internet.

B. To increase the number of registered IP addresses used.
C. To increase firewall performance.
D. To improve security.

Answer: A

QUESTION 233
Generally speaking which of the following could be done to mitigate a Day Zero host or server attack?

A. Install software that prevents actions such as buffer overflows and writes to the system directory.
B. Deploy Intrustion Detection on all switches that directly connect to hosts or servers.
C. Install Virus scanning software.
D. Ensure that your hosts and servers all have the latest security patches.
E. Generally speaking Day Zero attacks cannot be stopped.

Answer: A
In a zero-day attack, a worm or virus generally overflows a buffer, writes to the registry, or writes to the system directory.
Reference:
http://www.cisco.com/en/US/netsol/ns340/ns394/ns171/ns128/networking_solutions_white_paper09186a008009c8b6.shtml

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QUESTION 234
The Cisco Secure Intrustion Detection System sensor does not have the following type of interface available:

A. Ethernet
B. Serial
C. Token Ring
D. FDDI

Answer: B

Explanation: Sensors are optimized for specific data rates and are packaged in Ethernet, Fast Ethernet (100BaseT), Token Ring, and FDDI configurations

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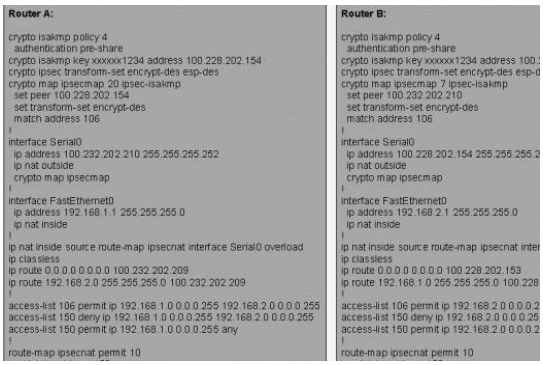
QUESTION 235
Exhibit:



Taking the exhibit above into consideration how would you expect IP traffic from the clients attached to the two Ethernet subnets to behave? (Choose all that apply.)

A. Traffic bound for the Internet will be translated by NAT and will be decrypted.
B. Traffic bound for the Internet will be unrouted due to private source IP addresses.
C. Traffic will not successfully access the Internet or the subnets of the remote router's Ethernet interface.
D. Traffic between the Ethernet subnets on both routers will be encrypted.
E. Traffic will be translated by NAT between the Ethernet subnets on both routers.

Answer: D

QUESTION 236
Under which of the following circumstances will Network Address Translation (NAT) not work well?

A. With outbound HTTP when AAA authentication is involved.
B. With traffic that carries source and/or destination IP addresses in the application data stream.
C. With ESP Tunnel mode IPSec traffic.
D. When PAT (Port Address Translation) is used on the same firewall.
E. When used in conjunction with static IP addresses assignment to some devices.

Answer: B

Explanation:
AH does not work with NAT

QUESTION 237
Inside addresses = 131.108.0.0
Outside global addresses = 198.108.10.0
Serial 0 is connected to the outside world
Which of the following Network Address Translation (NAT) configuration is correct when you consider the above information?

A. ip nat pool CCIE-198 198.108.10.0 198.108.10.255 prefex-length 24.
ip nat inside source list 1 pol CCIE-198
interface serial 0
ip address 131.108.1.1 255.255.255.0
ip nat outside

interface Ethernet0
ip address 198.108.10.1 255.255.255.0
ip nat inside
access-list 1 permit 131.108.0.0 0.0.255.255
B. ip nat pool CCIE-198 198.108.10.0 198.108.10.255 prefix-length 24
ip nat inside source list 1 pool CCIE-198
interface serial 0
ip address 198.108.10.1 255.255.255.0
ip nat outside
interface Ethernet0
ip address 131.108.1.1 255.255.255.0
ip nat inside
access-list 1 permit 131.108.0 0.0.255.255
C. ip nat pool CCIE-198 198.108.10.0 198.108.10.255 prefix-length 24.
ip nat inside source list 1 pool CCIE-198
interface serial 0
ip address 198.108.10.1 255.255.255.0
ip nat outside
interface Ethernet0
ip address 131.108.1.1 255.255.255.0
ip nat inside
access-list 1 permit 198.108.10.0 0.0.0.255
D. ip nat pool CCIE-131 131.108.1.0 131.108.1.255 prefix-length 24.
ip nat inside source list 1 pool CCIE-131
interface serial 0
ip address 198.108.10.1 255.255.255.0
ip nat inside
interface Ethernet0
ip address 131.108.1.1 255.255.255.0
ip nat outside
access-list 1 permit 198.108.10.0 0.0.0.255

Answer: B

Explanation: ip nat inside source list 1 pool CCIE-198 calls access list 1 to state which IP address are to be nated

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QUESTION 238
The newly appointed Certkiller trainee technician wants to know how many inside sessions can be translated when using NAT overload on a Cisco IOS or PIX-based firewall. What will your reply be?

A. 1 to 65,535
B. 1024 to 65,535
C. 1024 to 32,768
D. 1 to 64,000
E. 1024 to 64,000

Answer: A

QUESTION 239
At which layers of the OIS model do firewalls typically operate? (Select three)

A. Application
B. Network
C. Transport
D. Session
E. Physical

Answer: A, B, C

QUESTION 240
In the IOS Firewall Feature Set, which network layers are examined by CBAC to make filtering decisions? Select three.

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

Answer: A, B, C
Context-based Access Control (CBAC) examines not only network layer and transport layer information, but also examines the application-layer protocol information (such as FTP information) to learn about the state of TCP and UDP connections.

QUESTION 241
A bastion host is:

A. An impenetrable decoy firewall
B. A host that is not protected by a firewall and all security is handled by the applications
C. A host that is to be sacrificed to all hacking attempts in order to log and monitor the hacking activity.
D. A network's first line of defense against attack, typically located on the outside of a firewall
E. A network last line of defense against attack, typically located on the inside of a firewall.

Answer: D

QUESTION 242
What command in the IOS Firewall Feature Set is used to turn off CBAC?

A. no ip inspect cbac
B. no enable ip inspect
C. no enable cbac

D. no ip inspect
E. no ip inspect all

Answer: D
To turn off Context-based Access Control (CBAC) completely at a firewall, use the no ip inspect command in global configuration mode.

QUESTION 243
On what is proper firewall implementaion always dependent?

A. The selection of the most expensive equipment.
B. The use of IPSec, IKE and PKI.
C. Identifying network assets to discard.
D. Increasing the number of passwords each user must maintain.
E. Pervasive security

Answer: E

QUESTION 244
What sets the FECN bit in Frame Relay?

A. The Frame Relay network, to inform the DTE receiving the frame that congestion was experienced in the path form source to destination.
B. The Frame Relay network, in frames traveling in the opposite direction from those frames that encountered congestion.
C. The receiving DTE, to inform the Frame Relay network that it is overloaded and that the switch should throttle back.
D. The sending DTE, to inform the Frame Relay network that it is overloaded and that the switch should throttle back.
E. Any device that uses an extended DLCI address.

Answer: A

QUESTION 245
What are the available AAA protocols with the IOS Firewall Feature Set? (Choose all that apply.)

A. PAP
B. Kerberos
C. XTACACS
D. TACACS+

Answer: B, D

QUESTION 246
Which of the following represents the correct description of the authentication sequence for the IOS Firewall Authentication Proxy?

A. The user authenticates by FTP, and route maps are downloaded from the proxy server.
B. The user authenticates locally to the router.
C. The user authenticates by HTTP, and access lists are downloaded from the AAA server.
D. The user authenticates by Telnet, and access lists are downloaded from the AAA server.
E. The user authenticates by HTTP, or Telnet, and access lists are downloaded from the AAA server.

Answer: C

Explanation: When a user initiates an HTTP session through the firewall, the authentication proxy is triggered

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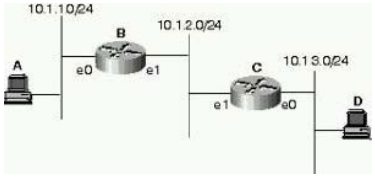
QUESTION 247
Exhibit:



Host A is attempting to send a packet through Router B to Host D as illustrated above. There are neither routing protocols configured nor are there any static routes for router B or C. However, Router B does have a default-gateway configured to the IP address of Router C using the configuration ip defaultgateway 10.1.2.2.
Will Host A's packet reach Host D?

A. Yes, the packets will reach Host D if the routers are configured to bridge.
B. Yes, the packets will reach Host D because Router B will forward the packets destined to 10.1.3.0/24 to Router C through its IP default-gateway configuration.
C. Yes, the packets will reach Host D, but Host D will not be able to communicate back to Host A, so the session will fail.
D. This will work if CDP is enabled on the routers.
E. Routers only route packets to routes in the routing table, not their IP default-gateway so Host A's packets will never reach Router C or Host D.

Answer: E

Explanation: By disabling routing in router, router no longer forwards packets that it received.
By configuring IP default gateway, router only send packets it creates itself.

QUESTION 248
What is the purpose of Administrative Distance, as used by Cisco routers?

A. It is a means of choice between routes from different routing protocols when receiving updates for the same network.
B. It is used to identify which routing protocol forwarded the update.
C. It defines the distance to the destination used in deciding the best path.
D. It is meant to be used only for administrative purposes.

Answer: A

Explanation: Administrative distance is the feature used by routers to select the best path when there are two or more different routes to the same destination from two different routing protocols. Administrative distance defines the reliability of a routing protocol. Each routing protocol is prioritized in order of most to least reliable (believable) using an administrative distance value.

QUESTION 249
When using PKI what is true about CRL?

A. A router or PIX will not require that the other end of the IPSec tunnel have a certificate if the crl optional command is in place.
B. It resides on the CA server and is built by querying the router or PIX to determine which clients have presented invalid certificates in the past.
C. The router's CRL includes a list of client that have presented invalid certificates to the router in the past.
D. The CRL is used to check presented certificates to determine if they are revoked.

Answer: D

QUESTION 250
What is the rationale behind a Network Administrator wanting to use Certificate Revocation Lists (CRLs) in their IPSec implementations?

A. CRLs allow netwotk administrators the ability to do "on the fly" authentication of revoked certificates.
B. They help to keep a record of valid certificates that have been issued in their network.
C. CRLs allow network administrators to deny devices with certain certificates from being authenticated to their network.
D. Wildcard keys are much more efficient and secure.
CRLs should only be used as a last resort.

Answer: C

Explanation: A method of certificate revocation. A CRL is a time-stamped list identifying revoked certificates, which is signed by a CA and made available to the participating IPSec peers on a regular periodic basis (for example, hourly, daily, or weekly). Each revoked certificate is identified in a CRL by its certificate serial number. When a participating peer device uses a certificate, that system not only checks the certificate signature and validity but also acquires a most recently issued CRL and checks that the certificate serial number is not on that CRL.

QUESTION 251
What happens during a SYN flood attack?

A. TCP connection requests floods a target machine is flooded with randomized source address & ports for the TCP ports.
B. A TCP SYN packet, which is a connection initiation, is sent to a target machine, giving the target host's address as both source and destination, and is using the same port on the target host as both source and

destination.
C. A TCP packet is received with the FIN bit set but with no ACK bit set in the flags field.
D. A TCP packet is received with both the SYN and the FIN bits set in the flags field.

Answer: A

Explanation: to a server that requires an exchange of a sequence of messages. The client system begins by sending a SYN message to the server. The server then acknowledges the SYN message by sending a SYNACK message to the client. The client then finishes establishing the connection by responding with an ACK message and then data can be exchanged. At the point where the server system has sent an acknowledgment (SYN-ACK) back to client but has not yet received the ACK message, there is a half-open connection. A data structure describing all pending connections is in memory of the server that can be made to overflow by intentionally creating too many partially open connections. Another common attack is the SYN flood, in which a target machine is flooded with TCP connection requests. The source addresses and source TCP ports of the connection request packets are randomized; the purpose is to force the target host to maintain state information for many connections that will never be completed. SYN flood attacks are usually noticed because the target host (frequently an HTTP or SMTP server) becomes extremely slow, crashes, or hangs. It's also possible for the traffic returned from the target host to cause trouble on routers; because this return traffic goes to the randomized source addresses of the original packets, it lacks the locality properties of "real" IP traffic, and may overflow route caches. On Cisco routers, this problem often manifests itself in the router running out of memory

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QUESTION 252
Which of the following statements regarding Certificate Revocation List (CRL) is valid when using PKI?

A. The CRL resides on the CA server and is built by querying the router or PIX to determine which clients' certificate status in the past.
B. The CRL is used to check presented certificates to determine if they are revoked.
C. A router or PIX will not require that the other end of the IPSec tunnel have a certificate if the crl optional command is in place.
D. The router's CRL includes a list of clients that have presented invalid certificates to the router in the past.

Answer: B

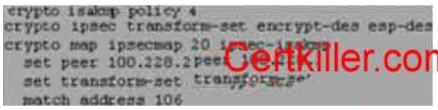
Explanation: A router or PIX will not require that the other end of the IPSec tunnel have a certificate if the crl optional command is in place --THIS SEEMS A RESONABLE ANSWER BUT HERE IS WHY I DISCOUNT IT--"will not require that the other end of the IPSec tunnel have a certificate" -- The PIX allows the Certificate even if the CA DOES NOT RESPOND. I have not seen it stated that it will allow NO certificate. To allow other peers' certificates to still be accepted by your router even if the appropriate Certificate Revocation List (CRL) is not accessible to your router, use the crl optional configuration command. If the PIX Firewall does not receive a certificate from the CA within 1 minute (default) of sending a certificate request, it will resend the certificate request. The PIX Firewall will continue sending a certificate request every 1 minute until a certificate is received or until 20 requests have been sent. With the keyword crloptional included within the command statement, other peer's certificates can still be accepted by your PIX Firewall even if the CRL is not accessible to your PIX Firewall.

QUESTION 253
Which of the following responses will an experiences Security Manager disprove of when a remote user tries to login to a secure network using Telnet, but accidentally types in an invalid username or password? (Choose two.)

A. Authentication Failure
B. Logon Attempt Failed
C. Invalid Username
D. Invalid Password
E. Access Denied

Answer: C, D

QUESTION 254
Exhibit:



Click the Exhibit button to view the configuration.
Assuming the configuration given, what will be the attributes of the Phase One negotiation?

A. Authentication: Pre-share
Hash Algorithm: SHA-1
Encryption: 56-bit DES-CBC
B. Authentication: RSA-SIG
Hash Algorithm: SHA-HMAC
Encryption: 56-bit DES-CBC
C. Authentication: RSA-SIG
Hash Algorithm: SHA-1
Encryption: 56-bit DES-CBC
D. Authentication: RSA-SIG
Hash Algorithm: SHA-1
Encryption: 3 DES-CBC
E. Authentication: Pre-share
Hash Algorithm: SHA-HMAC
Encryption: 56-bit DES-CBC

Answer: C
Default authentication method is RSA-SIG.

QUESTION 255
802.1x protocol is used primarily for what purpose?

A. Layer two authentication
B. Layer three authentication
C. Application layer authentication
D. MS-CHAP Authentication

E. VLAN allocation

Answer: A
802.1x is used for layer 2 authentication.

QUESTION 256
The newly appointed Certkiller trainee technician wants to know where Kerberos is mainly used. What will your reply be?

A. Session-layer protocols, for data integrity and checksum verification.
B. Application-layer protocols, like Telnet and FTP.
C. Presentation-layer protocols, as the implicit authentication system for data stream or RPC.
D. Transport and Network-layer protocols, for host to host security in IP, UDP, or TCP.
E. Datalink-layer protocols, for cryptography between bridges and routers.

Answer: B

Explanation: Type Application layer protocol. Ports: 88 (UDP) 464 (TCP, UDP) change/set password.

QUESTION 257
Why would you advice the new Certkiller trainee technician NOT to use NFS protocol for use across a firewall or a security domain?

A. The security of the protocol is not stringent because File permissions can easily be modified in the requests.
B. Industry technicians do not understand NFS well, but is actually appropriate to run across various security domains.
C. NFS is not secure because it does not have the concept of users and permissions.
D. It is UDP based which makes its state difficult to track.
E. This protocol uses a range of ports, and firewalls have difficulty opening the proper entry points to allow traffic.

Answer: D

Explanation: NOT SURE ABOUT THIS ONE Another use of RPC is with the following command to see the exports of 204.31.17.25 if you want to allow NFS mounting from outside in. Note RPC is a very nonsecure protocol and should be used with caution. Type Application layer file transfer protocol. Port 2049 (TCP, UDP).

QUESTION 258
MPPE (Microsoft Point to Point Encryption) is valid with which of the following forms of authentication?

A. MS-CHAP or EAP
B. CHAP (RFC 1994)
C. PAP
D. SPAP (Shiva PAP)

E. A and B

Answer: A

QUESTION 259
Which of the following represents a definition of Cipher text?

A. Cipher text can be defined as the key to encrypt a message.
B. Cipher text can be defined as the public key that has been changed with a peer to determine the original message.
C. Cipher text can be defined as the result of an already decrypted message on the receiving end.
D. Cipher text can be defined as the post-encrypted message that travels on the wire.
E. Cipher text can be defined as the key used for a one way hash in an IPSec Phase Two exchange.

Answer: D

QUESTION 260
What is the advantage of using Secure Shell instead of Telnet?

A. Secure Shell offers native accounting.
B. Secure Shell requires IPSec.
C. Secure Shell qualifies for C1 security under TCSEC guidelines.
D. Secure Shell provides an encrypted tunnel.
E. Secure Shell offers increased key length for encryption.

Answer: D

QUESTION 261
Which of the following statements regarding MPPE (Microsoft Point to Point Encryption) is valid?

A. MPPE is the Microsoft implementation of RFC's 2409 and 2402.
B. MPPE has an encryption mechanism that is independent of the user's password.
C. MPPE uses the RC4 encryption algorithm.
D. MPPE uses 768 or 1024-bit encryption keys.

Answer: C
FC 2409 and 2402 refers to ISAKMP and IPSec.

QUESTION 262
Which of the following commands is NOT a Kerberos executable on a Kerberos Version 5 Unix system?

A. kadmin
B. keytab
C. kdb5_util
D. krb5kdc

Answer: B

QUESTION 263

What will happen to the traffic flow between two routers with asymmetric crypto access-lists when configured as shown?

A. The flow source 2.2.2.X through CK1 to destination 4.4.4.X on the other side of CK2 will be encrypted. The flow from source 4.4.4.X through CK2 to destination 2.2.2.X on the other side of CK1 will no be encrypted.
B. All traffic between 2.2.2.X and 4.4.4.X will be encrypted.
C. All traffic between 2.2.2.X and 4.4.4.X will be unencrypted.
D. No traffic will flow between 2.2.2.X and 4.4.4.X, because CK1 is expecting traffic with a source of 4.4.4.X and destination of 2.2.2.X to be encrypted.
However, CK2 is not encrypting this traffic.

Answer: D
The crypto access-list not only defines what outbound traffic is protected, but also what inbound traffic protected. If traffic arrives that matches the crypto access list, but is not protected in the manner defined by the transform set, the traffic is dropped.
Reference:
Page 673, Troubleshooting Virtual Private Networks, Cisco press

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QUESTION 264
What would be the biggest challenge to a hacker writing a man-in-the-middle attack aimed at VPN tunnels using digital certificates for authentication?

A. Programmatically determining the private key so they can proxy the connection between the two VPN endpoints.
B. Determining the ISAKMP credentials when passed to establish the key exchange.
C. Determining the pase two credentials used to establish the tunnel attributes.
D. Decrypting and encrypting 3DES once keys are known.
E. Decrypting and encrypting AES once keys are known.

Answer: A

QUESTION 265
Which are valid modes in the Cisco IDS signature a engine parameter Alarm Throttle?

A. NoSummarize
B. Summarize
C. GlobalSummarize
D. FireOnce
E. FireEvery
F. Null
G. FireAll

Answer: B, C, D, G
Alarm Throttle paramaters are: AlarmThrottleFireOnce, AlarmThrottle FireAll, AlarmThrottle Summarize, AlarmThrottle GlobalSummarize

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QUESTION 266
Which are possible pattern matching techniques that are used in Cisco's network IDS? Select three.

A. Stateful
B. Statislical moments
C. Heuristic analysis
D. Threshold matching
E. Protocol anomaly - based

Answer: A, C, E

QUESTION 267
Identify the invalid Cisco Secure Intrustion Detection System function:

A. It sets off an alarm when certain user-configurable strings are matched.
B. It sends e-mail message at particular alarm levels via event.
C. It send a TCP reset to the intruder when operating in packet sniffing mode.
D. It performs a traceroute to the intruding system.

Answer: D
The IDS does not perform a traceroute to the intruding system.
You can configure the IDS appliance to respond to recognized signatures as it captures and analyzes network traffic. These responses include logging the event, forwarding the event to the IDS manager, performing a TCP reset, generating an IP log, and/or reconfiguring a router.

QUESTION 268
Exhibit:

	Evasion Technique		Code Example
1	Method Replacing Tricks	A	//cgi-bin//examplexample.cgi
2	Double Slashes	B	GET /%63%67%69%2D%62%69%6Eexample.cgi
3	Parameter Hiding	C	/cgi-bin/././././example.cgi
4	DOS/Windows Directory Syntax	D	GET /cgi-bin/example.cgi -> HEAD /cgi-bin/example.cgi
5	Reverse Traversal	E	//cgi-bin//example.cgi
6	Session Splicing	F	GET /index.html%3Fparam=/../cgi-bin/example.cgi
7	URL Encoding	G	http://server/cgi-bin\example.cgi
8	Self-referencing directories	H	The URL is sent in small packets: "GE", "T", " /", "ex", "a", "m", "pl", "e.", "c", "gi"

Match the shown IDS evasion methods with the proper example givem.

A. 1 -C, 2 - E, 3 - F, 4 - G, 5 - A, 6 - H, 7 - B, 8 - D
B. 1 -D, 2 - E, 3 - F, 4 - G, 5 - C, 6 - H, 7 - B, 8 - A
C. 1 -C, 2 - F, 3 - E, 4 - G, 5 - A, 6 - H, 7 - B, 8 - C
D. 1 -D, 2 - E, 3 - F, 4 - G, 5 - A, 6 - H, 7 - B, 8 - C

Answer: D

QUESTION 269
How does Anomaly-based Intrustion detection recognize that a network attack is in progress?

A. The IDS matches packets with a signature and then logs the unusual activity.
B. The IDS normalizes network traffic and alarms when sampled traffic falls out of that norn.
C. Protocol adherence rules are established by the administrator and any deviation from that is flagged as a potential attack.
D. The IDS normalizes network traffic The System manager then creates signatures based on the normalization.
If it detects different patterns it will report those patterns as potential attacks.

Answer: B

QUESTION 270
What is the main difficulty facing exploit software when trying to hijack a TCP session?

A. Spoofing a source address.
B. Hopping a VLAN to get in-line with the connection.
C. Calculating the sequence number.
D. Injecting their IP address as a default gateway.
E. Converting the TCP packet to UDP for eaiser injection.

Answer: C
Reference:
http://www.ietf.org/rfc/rfc1948.txt?number=1948

QUESTION 271
What are the potential dangers of running the Finger service on hosts?

A. Finger opens a port that data can be transferred to, thus enabling an intruder to access password files.
B. If Finger has a trust relationship to another server, the associated port can be exploited for unauthorized logon.
C. Finger allows users to logon physically to a system of the service aborts.
D. Some Finger services have forwarding capabilities that allow intruders to mask their identities when gaining access to the service.

Answer: D

QUESTION 272
Mail Server A is trying to contact Mail Server B behind a firewall. Mail Server A makes the initial connection, but there is a consistent long delay (1 minute) before the queued mail is actually sent.
A reason for this might be:

A. Mail Server A does not have a default route.
B. Mail Server B does not have a default route.
C. The firewall is blocking TCP port 113.
D. A third Mail Server is delaying the traffic.
E. Mail Server A does not have the IDENT server running.

Answer: A

QUESTION 273
What happens when one experiences a ping of death?

A. This is when an IP datagram is received with the "protocol" field in the IP header set to 1 (ICMP) and the "type" field in the ICMP header is set to 18 (Address Mask Reply).
B. This is when an IP datagram is received with the "protocol" field in the IP header set to 1 (ICMP), the Last Fragment bit is set, and (IP offset ' 8) + (IP data length) >65535.
In other words, the IP offset (which represents the starting position of this fragment in the original packet, and which is in 8-byte units) plus the rest of the packet is greater than the maximum size for an IP packet.
C. This is when an IP datagram is received with the "protocol" field in the IP header set to 1 (ICMP) and the source equal to destination address.
D. This is when an the IP header is set to 1 (ICMP) and the "type" field in the ICMP header is set to 5 (Redirect).

Answer: B

Explanation: "A hacker can send an IP packet to a vulnerable machine such that the last fragment contains an offest where (IP offset *8) + (IP data length)>65535. This means that when the packet is reassembled, its total length is larger than the legal limit, causing buffer overruns in the machine's OS (becouse the buffer sizes are defined only to accomodate the maximum allowed size of the packet based on RFC 791)...IDS can generally recongize such attacks by looking for packet fragments that have the IP header's protocol field set to 1 (ICMP), the last bit set, and (IP offset *8) +(IP data length)>65535" CCIE Professional Development Network Security Principles and Practices by Saadat Malik pg 414 "Ping of Death" attacks cause systems to react in an unpredictable fashion when receiving oversized IP packets. TCP/IP allows for a maximum packet size of up to 65536 octets (1 octet = 8 bits of data), containing a minimum of 20 octets of IP header information and zero or more octets of optional information, with the rest of the packet being data. Ping of Death attacks can cause crashing, freezing, and rebooting.

QUESTION 274
CiscoWorks VMS consists of several management consoles or MCs. The IDS is used to control the configuration of the IDS sensors and IDSM blades deployed in an enterprise. Which parameters must be

unique when in a given PostOffice domain?

A. IP address and PostOffice ID
B. Host ID and PostOffice domain name
C. Host ID and IP address
D. Organization ID and Host ID
E. Organization name and Organization ID
F. Organization ID and PostOffice ID

Answer: D
Within a postoffice domain, no sensor or sensor group can have the same Org ID/Host ID pair as another sensor or sensor group."

QUESTION 275
Which of the following is a primary difference between UNIX implementation of traceroute and tracert.exe version found on Windows NT?

A. Unix traceroutes use ICMP echo requests with varying TTLs, while NT sends UDP probes on a pseudo random port with varying TTLs and watches for returning ICMP messages.
B. It is a similar implementation strategy regardless of the operation system.
C. Unix traceroutes send UDP probes on a pseudo random port with varying Time to Live (TTL) settings and watch for returning ICMP messages, whereas NT makes use of ICMP echo requests with varying TTLs.
D. NT makes use of UDP probes on port 33000 and Unix makes use of UDP probes on port 335000.
E. None of the above.

Answer: E

QUESTION 276
What can be used to solve a problem situation where a user's PC is unable to ping a server located on a different LAN connected to the same router?

A. Ensure routing is enabled.
B. A default gateway from the router to the server must be defined.
C. Check to see if both the PC and the server have properly defined default gateways.
D. Both the server and the PC must have defined static ARP entries.

Answer: C

QUESTION 277
If the PIX firewall is not configured with a static/conduit to allow explicit access from the outside to the inside, data sent to inside addresses result in the firewall dropping the packets sent to it. In this regard, the PIX is acling like

A. A black hole router
B. A bridge

C. A router
D. A brouter
E. None of the above

Answer: A

QUESTION 278
The PIX firewall allows users to block Java when using what combination of keywords and implementation?

A. "no cafebabe" in a static
B. "no java" in a static
C. "no cafebabe" in an outbound list
D. "filter java" in an outbound list

Answer: D
The filter java command filters out Java applets that return to the PIX Firewall from an outbound connection.
Reference:
http://www.cisco.com/univercd/cc/td/doc/product/iaabu/pix/pix_sw/v_63/config/mngacl.htm#wp1016381

QUESTION 279
Which network layers are examined by CBAC to make filtering decisions in the IOS Firewall Feature Set environment? (Choose all that apply.)

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

Answer: A, D, E

Explanation: CBAC intelligently filters TCP and UDP packets based on application-layer protocol session information and can be used for intranets, extranets and the Internet. You can configure CBAC to permit specified TCP and UDP traffic through a firewall only when the connection is initiated from within the network you want to protect. (In other words, CBAC can inspect traffic for sessions that originate from the external network.) However, CBAC examines not only network layer and transport layer information but also examines the application-layer protocol information (such as FTP connection information) to learn about the state of the TCP or UDP session.

QUESTION 280
Why do scanning tools may report a root Trojan Horse compromise when it is run against an IOS component?

A. IOS is based on BSD UNIX and is thus subject to a Root Trojan Horse compromise.
B. The scanning software is detecting the hard-coded backdoor password in IOS.

C. Some IOS versions are crashable with the telnet option vulnerability.
D. The port scanning package mis-parses the IOS error messages.
E. IOS will not respond to vulnerability scans.

Answer: D

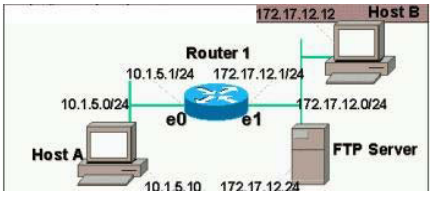
QUESTION 281
What does a "yellow" sensor icon signify in the Cisco Secure Intrustion Detection System/HP OpenView interface?

A. A "yellow" sensor icon means that a sensor daemon had logged a level 4 or 5 alarm.
B. A "yellow" sensor icon means that the director that the sensor reports to is operating in degraded mode.
C. A "yellow" sensor icon means that a sensor daemon had logged a level 3 alarm.
D. A "yellow" sensor icon means that the device that the sensor detected being attacked is inoperative due to the attack.

Answer: C

Explanation: Alarm level 3 and 4 are medium. Medium severity is displayed in yellow, then icon medium severity is a yellow flag. by defualt events at level 1 and 2 are low, events at level 3 and 4 are medium, level 5 and higher are high.
Cisco Secure Intrustion detection system by Earl Carter p. 148, 213, 214

QUESTION 282
Symptoms:
- Syslog logging: enabled (0 messages dropped, 0 flushes, 0 overruns)
- Console logging: level warning, 0 messages logged
- Monitor logging: level informational, 0 messages logged
- Buffer logging: level informational, 0 message lines logged
Note: Router 1's CPU is usually above 25% busy switching packets
Scenario:
Host A cannot reach the FTP Server, but can reach Host B. The Certkiller network administrator suspects that packets are travelling from network 10.1.5.0 to the FTP Server, but not returning. The administrator logs into the console port of Router 1. When Host A sends a ping to the FTP Server, the administrator executes a "debug ip packet" command on the router.
Exhibit:



The Certkiller administrator does not see any output. What are the additional commands that he could use to see the packets flowing from Ethernet 0 to Ethernet 1?

A. terminal monitor
B. configure terminal

logging console debug
C. configure terminal
no logging buffered
D. configure terminal
logging console debug
interface ethernet1
no ip route-cache
E. configure terminal
interface ethernet0
no ip route-cache

Answer: D

Explanation: By default, the network server sends the output from debug commands and system error messages to the console. If you use this default, monitor debug output using a virtual terminal connection, rather than the console port. To redirect debug output, use the logging command options within configuration mode as described 7 debugging Debugging messages. LOG_DEBUG
When multicast fast switching is enabled (like unicast routing), debug messages are not logged. If you want to log debug messages, disable fast switching.
To limit the types of messages that are logged to the console, use the logging console router configuration command. Use the ip route-cache interface configuration command to control the use of high-speed switching caches for IP routing. To disable any of these switching modes, use the no form of this command.

QUESTION 283
User_A and User_B are logged into Windows NT Workstation Host_A and Host_B respectively.
All users are logged in to the domain"CORP".
All users run a logon script with the following line: "net useD:\\CORPSVR\data"
- User_A and User_B are both members of the local group "USERS".
- Local group "USERS" is included in global group "DOMAIN USERS".
- All users, hosts, and groups are in the domain "CORP".
- The directory \\CORPSVR\data has the share permission for local group "USERS" set to "No Access".
- The Microsoft Word document \\CORPSVR\data\word.doc has file permissions for local group "USERS" set to "Full Control".
- The Microsoft Word document \\CORPSVR\data\word.doc is owned by User_B.
What would you expect to happen when User _A attempts to edit D:\word.doc given this scenario on a Windows NT 4.0 network?

A. Insufficient information.
Permissions on Microsoft Word are set within the application and are not subject to file and share level permissions.
B. Local groups cannot be placed into global groups.
The situation could not exist.
C. Access would be denied.
Only the owner of a file can edit a document.
D. Access would be denied.

"No access" overrides all other permissions unless the file is owned by the user.
E. User_A has full control and can edit the document successfully.

Answer: B

QUESTION 284
Which of the following is an invalid Cisco Secure Intrustion Detection System function?

A. Cisco Secure Intrustion Detection System sets off an alarm when certain user-configurable strings are matched.
B. Cisco Secure Intrustion Detection System sends e-mail messages at particular alarm levels via eventd.
C. Cisco Secure Intrustion Detection System performs a traceroute to the intruding system.
D. Cisco Secure Intrustion Detection System sends a TCP reset to the intruder when operating in packet sniffing mode.

Answer: C

Explanation: Traceroute is not done.

QUESTION 285
How does Cisco Secure Intrustion Detection System sensor behave when it detects unauthorized activity?

A. Cisco Secure Intrustion System sensor will send an e-mail to the network administrator.
B. Cisco Secure Intrustion System sensor will send an alarm to Cisco Secure Intrustion Detection System Director.
C. Cisco Secure Intrustion System sensor will shut down the interface where the traffic arrived, if device management is configured.
D. Cisco Secure Intrustion System sensor will perform a traceroute to the attacking device.

Answer: B

Explanation: CSIDS does a lot of these things, but the sensor is more specified. It sends the alarm to the full CSIDS director

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QUESTION 286
The newly appointed Certkiller trainee technician wants to know if one can change the situation where every time a typing mistake is made at the exec prompt of a router, the message from the router indicates a lookup is being performed. Also, there is a waiting period of several seconds before the next command can be typed. What will your reply be?

A. No, this is a default feature of Cisco IOS software.
B. Yes, by using the no ip domain-lookup command.
C. Yes, by using the no ip helper-address command.
D. Yes, by using the no ip multicast helper-map command.
E. Yes, by using the no exec lookup command.

Answer: B

Explanation: You can disable IP domain lookup using the no ip domain-lookup command under the router's global configuration mode. This will stop the IP domain lookup and speed up the show command output.

QUESTION 287
Which network management software installation is a prerequisite for the Cisco Secure Intrustion Detection System Director software?

A. CiscoWorks 2000 on Unix.
B. SunNetManager on Solaris.
C. Microsoft Internet Information Server on Windows NT.
D. NetSonar on Linux.
E. HP OpenView on HPUX or Solaris.

Answer: E

Explanation: The following software must be installed on your workstation:
HP-UX
HP-UX 10.20
HP OpenView 4.1, 5.01, or 6.0
Web browser (for NSDB and help file)
Sun Solaris
Solaris 2.5.1 or 2.6
HP OpenView 4.1, 5.01, or 6.0
Web browser (for NSDB and help file)

QUESTION 288
What does "counting to infinity" mean in a Distance Vector protocol environment?

A. "counting to infinity" means calculating the time taken for a protocol to converge.
B. "counting to infinity" means checking that the number of route entries do not exeed a set upper limit.
C. "counting to infinity" can occur when Split Horizon is not enabled.
D. "counting to infinity" means setting an upper limit for hop count, to break down routing loops if this limit is reached.
E. "counting to infinity" means causing the router to enter an infinite loop and requires the router to be restarted.

Answer: D

QUESTION 289
On which principle is the "Birthday Attack" based on?

A. Statistics prove that holidays are focused on "birthdays", and systems are not monitored as carefully during these days.
B. People using birthdays as passwords.

C. Two subtly different messages may produce the same hash.
D. Many systems seed random numbers from a DAY/TIME value.
E. Statistics show that more than one person must know a birthdate for it to have importance.

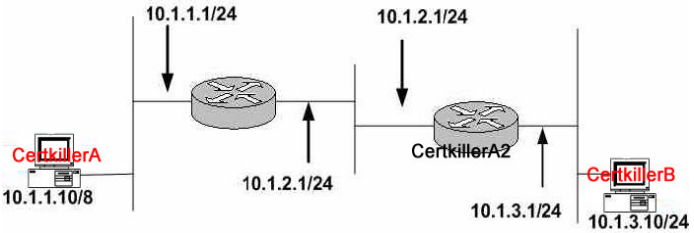
Answer: C
A birthday attack is a name used to refer to a class of brute-force attacks. It gets its name from the surprising result that the probability that two or more people in a group of 23 share the same birthday is greater than 1/2; such a result is called a birthday paradox.
If some function, when supplied with a random input, returns one of k equally-likely values, then by repeatedly evaluating the function for different inputs, we expect to obtain the same output after about 1.2k1/2. For the above birthday paradox, replace k with 365.

QUESTION 290
The Certkiller network is using Cisco Secure Intrustion Detection System and the network traffic pattern appears ordinary. However, numerous false positives for a particular alarm are received.
What can you do to avoid the quantity of "noise" in the future?

A. Click the unmanage for the alarm in question in the HP OpenView/NR GUI interface.
B. Click the acknowledge for the alarm in question in the HPOV/NR GUI interface.
C. You can use ventd to decrease the alarm level severity.
D. You could configure a decreases alarm level severity through nrconfigure.

Answer: D

QUESTION 291
Network topology exhibit:



Host Certkiller A is the only device that has an 8 bit network mask. When Host Certkiller A needs to send a packet to Host Certkiller B. which are required in order for this to work?
Note: assume both Router Certkiller 1 and Router Certkiller 2 have routing entries for all networks involved.

A. Host Certkiller A needs to have its default gateway pointing to Router Certkiller 1.
B. Host Certkiller B needs to have its default gateway pointing to Router Certkiller 2.
C. Proxy ARP needs to be enabled on Router Certkiller 1.
D. 'Proxy ARP needs to be enabled on Router Certkiller 2'

Answer: B, C

QUESTION 292
If an attacker is able to gain shell access with root or administrator privileges, what would be a logical

next step to ensure that they could log on ahaon in the future?

A. Install a program, such as netcat, to initialize on system startup and provide remote access through a network accessible port.
B. Install a program that can sniff usernames and passwords to the compromised systems.
C. Install a program that will map the internal network so the attacker can find another entry point and compromise other systems.
D. Install a DDos and schedule to launch once a week that will bring down the firewall so that attacker can gain network access.

Answer: B

QUESTION 293
Using Ciscos' Security Device manager on an IOS router, what functions could you expect the security audit option to do for you?

A. Scan for and report open ports.
B. Report IOS vulnerabilities.
C. List identificable configuration problems and suggest recommendations for fixing them.
D. Configure LAN and WAN interfaces with IP addresses and security related commands.
E. Generate and apply commands to close all unnecessary ports.

Answer: C
SDM also offers a 1-click router lockdown and an innovative Security Auditing capability to check and recommend changes to router configuration based on ICSA Labs, and Cisco TAC recommendations.
Reference:
http://www.cisco.com/en/US/products/sw/secursw/ps5318/index.html

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QUESTION 294
The newly appointed Certkiller trainee technician wants to know what PFS (Perfect Forward Security) requires. What will your reply be?

A. AH
B. ESP
C. Another Diffie-Hellman exchange when an SA has expired
D. Triple DES
E. A discrete client
F. All of the above

Answer: C

Explanation: crypto map mymap 10 set pfs group2. This example specifies that PFS should be used whenever a new security association is negotiated for the crypto map "mymap 10." The 1024-bit Diffie-Hellman prime modulus group will be used when a new security association is negotiated using the Diffie-Hellman exchange.

QUESTION 295
Which of the following services would you advice the new Certkiller trainee technician to enable on ISO firewall devices?

A. SNMP with community string public.
B. TCP small services.
C. UDP small services.
D. Password-encryption.
E. CDP
F. All of the above.

Answer: D

Explanation: To encrypt passwords, use the SERVICE password-encryption global configuration command
The answer of TCP small-serivces and UDP are TCP and UDP small-servers

---

QUESTION 296
Which file on the Unix system has to be modified to allow copying to occur when a network manager issues an RCP (Remote Copy) when copying a configuration from a router to a Unix system?

A. rcmd
B. rcmd.allow
C. allow.rcmd
D. hosts.allow
E. .rhosts

Answer: D

Explanation: NOT SURE OF THIS ANSWER I AM SAYING .RHOSTS The $HOME/.rhosts file defines which remote hosts (computers on a network) can invoke certain commands on the local host without supplying a password. This file is a hidden file in the local user's home directory and must be owned by the local user

---

QUESTION 297
The newly appointed Certkiller trainee technician wants to know what the definition of exploit signatures is in the context of Intrustion detection. What will your reply be?

A. Exploit Signatures are policies that prevent hackers from your network.
B. Exploit Signatures are security weak points in your network that are open to exploitation by intruders.
C. Exploit Signatures are identifiable patterns of attacks detected on your network.
D. Exploit Signatures are digital graffiti from malicious users.
E. Exploit Signatures are certificates that authenticate authorized users.

Answer: C

QUESTION 298
The Certkiller network administrator has forgotten the enable password of the router. There are no users

logged into the router, but all passwords on the router are encrypted.
What can the administrator do to recover the enable secret password?

A. The administrator can reboot the router, press the BREAK key during boot up, and boot the router into ROM Monitor mode to erase the configuration, and re-install the entire configuration as it was saved on a TFTP server.
B. The administrator can call the Cisco Technical Assistance Center (TAC) for a specific code that will erase the existing password.
C. The administrator can reboot the router, press the BREAK key during boot up, boot the router into ROM Monitor mode to either erase or replace the existing password, and reboot the router as usual.
D. The administrator should erase the configuration, boot the router into ROM Monitor mode, press the BREAK key, and overwrite the previous enable password with a new one.

Answer: A

Explanation: The other possible answer is not correct in my view as you still need to put the config back onto the router after rommon mode (normally in nvram but TFTP is a valid storage place as well)

QUESTION 299
Which well-known ports are used for DNS when taking the RCF 1700 into account?

A. TCP and UDP 23.
B. UDP 53 only.
C. TCP and UDP 53.
D. UDP and TCP 69.

Answer: C

Explanation: Type Application layer name space translation protocol. Port 53 (TCP, UDP) server.

QUESTION 300
The newly appointed Certkiller trainee technician wants to know what the purpose of Lock & Key is.
What will your reply be?

A. Lock & Key secures the console port of the router so that even users with physical access to the router cannot gain access without entering the proper sequence.
B. Lock & Key permits Telnet to the router and have temporary access lists applied after issuance of the access-enable command.
C. Lock & Key require additional authentication for traffic travelling through the PIX for TTAP compliance.
D. Lock & Key is to prevent users from getting into enable mode.

Answer: B

Explanation: Lock-and-key access allows you to set up dynamic access lists that grant access per user to a

specific source/destination host through a user authentication process. You can allow user access through a firewall dynamically, without compromising security restrictions. The following process describes the lock-andkey
access operation A user opens a Telnet session to a border router configured for lock-and-key access. The Cisco IOS software receives the Telnet packet and performs a user authentication process. The user must pass authentication before access is allowed. The authentication process can be done by the router or a central access server such as a TACACS+ or RADIUS server.

QUESTION 301
IDS tuning requires a step-by-step methodology in order to successfully tuje ISD signatures effectively. Put the following tuning steps for a new sensor into their proper order.

A. Identify critical assets that require monitoring and protection.
B. Update sensors with new signatures.
C. Let sensors operate for a period of time generating alarms using the default configuration.
D. Apply initial configuration.
E. Selectively implement response actions.
F. Connect sensors to network.
G. Analyze alarms and tune out false positives.

A. A, F, D, C, G, E, B
B. A, C, F, D, G, E, B
C. A, B, C, D, E, G, F
D. F, E, G, A, B, C, D

Answer: A

QUESTION 302
CHAP password encryption uses a secret key on an Access service and an ACS Server to:

A. Encrypt the passwords
B. Encrypt the payload
C. Issue a challenge
D. Create a hash

Answer: D

QUESTION 303
Current configuration:
!
version 12.0
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname Simon

enable secret 5 $1SXV53$hqb0Ra7gwpky0cmL4u3EW0
enable password cisco
Given the configuration shown above, what should you type to gain enable access on router Simon?

A. cisco
B. Simon
C. 4u3EW0
D. $1sXV53$hqb0Ra7gwpky0cmL4u3EWO
E. Cannot tell

Answer: E
When an enable secret is specified, it takes precedence over the enable password. The secret password is encrypted and not readable in the config.

QUESTION 304
Network topology exhibit:


```
Applied to the crypto map on Router Certkiller1's S0 Interface:
match address 101
access-list 101 permit ip host 1.1.1.1 host 3.3.3.3

Applied to the crypto map on Router Certkiller2's S0 Interface:
match address 102
access-list 1092 permit ip host 3.3.3.3 host 3.3.3.1
```

Given the shown IPSec scenario:

A. All traffic between networks 1.1.1.X and 3.3.3.X will be block, except for traffic between hosts 1.1.1.1 and 3.3.3.3.
B. Traffic between network 1.1.1.X and 3.3.3.X will flow unencrypted. However, for traffic between hosts 1.1.1.1 and 3.3.3.3. These are the runnel ends points and all traffic between these devices will be encrypted.
C. Most traffic between networks 1.1.1.X and 3.3.3.X will flow unencrypted. However, the traffic between hosts 1.1.1.1 and 3.3.3.3 will be encrypted on the segment between 2.2.2.1 and 2.2.2.2.
D. Traffic between 1.1.1.1 and 2.2.2.1. will be encrypted, as well s traffic between 2.2.2.2. and 3.3.3.3.

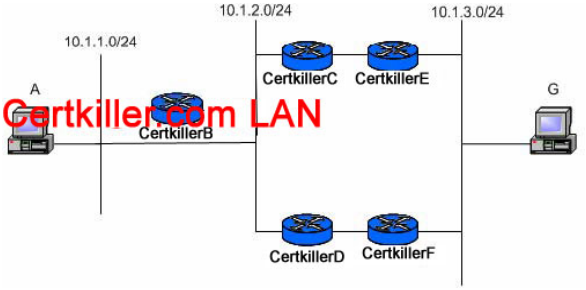
Answer: C
The access-list in the exhibit on router CK2 is incorrect. It should read: "access-list 102 permit ip host 3.3.3.3 host 1.1.1.1". In this corrected scenario, traffic between the two host addresses 1.1.1.1 and 3.3.3.3 will be encrypted on the serial link between CK1 and CK2 . All other traffic between these subnets will be unencrypted.

QUESTION 305
What statement about Diffie-Hellman key exchange is FALSE?

A. The two routers involved in the key swap generate large random integers (i), which are exchanged in private.
B. The local secret key is combined with known prime numbers n and g in each router to generate a Public key.
C. Each router combines the private key received from the opposite router with its own public key to create a shared secret key.
D. Each router uses the received random integer to generate a local secret (private) crypto key.

Answer: D

QUESTION 306
Exhibit:



The network administrator wants only Telnet traffic to travel over the link between Routers Certkiller C and Certkiller E, while all other traffic travels over the link between Routers Certkiller D and Certkiller F. Is this possible?

A. No, this strategy is impossible because routers can only route based on a destination address.
B. The Telnet port traffic can travel the specified link using policy routing.
However, there will be no control over the traffic coming from the Telnet port, since access-list can only be configured to look at the destination port number.
C. Yes, it can be configured to work using extended access-list applied to the links between Routers Certkiller C, and Certkiller E, Certkiller D, and Certkiller F.
D. Yes, it can be configured to work by making use of policy routing.
The match statements must use extended access-list which will match the traffic sourced from and destined to the telnet ports.
Also, policy routing could be applied to the Ethernet ports on Routers Certkiller B, Certkiller D, and Certkiller F, if routing is configured properly.
E. Yes, this can be enabled by making use of EIGRP with route tags.

Answer: D

QUESTION 307
The no ip directed-broadcast command is useful in preventing SMURF style attacks for the following reason:

A. It prevents your network device from being a target.
B. It prevents your network device from launching an attack.
C. It prevents your network device from being a reflector in an attack.
D. It prevents your network device from being traced as the source of an attack.
E. None of the above.

Answer: D
Reference:
http://www.pentics.net/denial-of-service/presentations/19971027_smurf_files/frame.htm

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QUESTION 308
NTP (Network Time Protocol) or the clock set commad must be set up when which features or services are employed on a router? (Select two)

A. L2TP
B. Intusion Detection
C. Kerkeros
D. PKI

Answer: C, D

QUESTION 309
What range can Cisco Secure Intrustion Detection System user-definable string-matches have?

A. Signatures 1000
B. Signatures 3000
C. Signatures 8000
D. Any signature range

Answer: C
8000 series of signature category is string match signatures for the signature types of custom string matches and TCP applications.
Reference:
Page 445, Network Security and Principle and Practices, Cisco press

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QUESTION 310
What is a Trojan Horse?

A. A malicious program that captures your username and password
B. Malicious code masquerading as or replacing legitimate code
C. An unauthorized user who gains access to your user database and adds themselves as a user
D. A server that is to be sacrificed to all hacking attempts in order to log and monitor the hacking activity

Answer: B

QUESTION 311
What attack may be successful even though one time passwords are being used for authentication?

A. Password sniffing
B. Brute force password attacks
C. Session hijacking
D. Key manipulation
E. Trojan Horse

Answer: E
There are several ways in which a password may be snooped directly on the client machine. For instance, someone with root access may maliciously have installed a trojan horse version of an application program or a "wiretap" device driver in the kernel. We can employ OTPs for authentication purposes. Since each password is valid for only one time, the password, if snooped, is not useful for later authentications.

QUESTION 312
A denial of Service (DoS) attack works on the following principle:

A. MS-DOS and PC-DOS operating system utilize a weaknesses that can be compromised and permit them to launch an attack easily.
B. All CLIENT systems have TCP/IP stack implementation weakness that can be compromised and permit them to lunch an attack easily.
C. Overloaded buffer systems can easily address error conditions and respond appropriately.
D. Host systems cannot respond to real traffic, if they have an overwhelming number of incomplete connections (SYN/RCVD State).
E. A server stops accepting connections from certain networks one those network become flooded.

Answer: D

QUESTION 313
What would be a reason to decrease the security association lifetime on a router?

A. To ease the workload on the router CPU and RAM
B. To give a potential hacker less time to decipher the keying
C. To improve Perfect Forward Secrecy (PFS)
D. If the lifetime of the peer router on the other end of the tunnel is shooter, the lifetime on the local router must be decreased so that the SA lifetime of both routers is the same.

Answer: B

QUESTION 314
If the result of an attack left an ARP table in the state below, what address would you suspect of launching the attack?

Internet 171.16.1.100	- 000c.5a35.3c77	ARPA FastEthernet0/0
Internet 171.16.1.111	0 00bc.d1f5.f769	ARPA FastEthernet0/0
Internet 171.16.1.112	0 00bc.d1f5.f769	ARPA FastEthernet0/0

Internet 171.16.1.113 3 00bc.d1f5.f769 ARPA FastEthernet0/0
Internet 171.16.1.114 0 00bc.d1f5.f769 ARPA FastEthernet0/0

A. 171.16.1.100
B. 171.16.1.111
C. 171.16.1.112
D. 171.16.1.113
E. 171.16.1.114

Answer: D
The second column represents the age in minutes of the arp entry. 113 has the oldest age in the arp table and is mapped to the mac address that has flooded the arp table with different IP addresses.

QUESTION 315
What is the term used to describe an attack that falsifies a broadcast ICMP echo request and includes a primary and secondary victim?

A. Fraggle Attack
B. Man in the Middle Attack
C. Trojan Horse Attack
D. Smurf Attack
E. Back Orifice Attack

Answer: D

Explanation: Trojan and Back orifice are Trojan horse attacks. Man in the middle spoofs the Ip and redirects the victems packets to the cracker The infamous Smurf attack. preys on ICMP's capability to send traffic to the broadcast address. Many hosts can listen and respond to a single ICMP echo request sent to a broadcast address. Network Intrustion Detection third Edition by Stephen Northcutt and Judy Novak pg 70 The "smurf" attack's cousin is called "fraggle", which uses UDP echo packets in the same fashion as the ICMP echo packets; it was a simple re-write of "smurf".

QUESTION 316
A switch has been configured to support MultiLayer Switching (MLS). In addition, Access Control Lists on the MLS-Route Processor have been configured to block all FTP traffic destined to the Internet.
What flow mask will be used to create each shortcut?

A. Application flow mask
B. Full flow mask
C. Destination-Source flow mask
D. Destination flow mask

Answer: B
There are three types of IP MLS flow-mask modes: destination-ip, source-destination-ip, and full-flow-ip. This section describes how these three flow-mask modes work.
• destination-ip-The least-specific flow mask. The PFC maintains one MLS entry for each destination IP

address. All flows to a given destination IP address use this MLS entry. In destination-ip mode, the destination IP address of the switched flows are displayed, along with the packet rewrite information: rewritten destination MAC, rewritten VLAN, and egress interface.
• source-destination-ip-The PFC maintains one MLS entry for each source and destination IP address pair. All flows between a given source and destination use this MLS entry regardless of the protocolspecific Layer 4 port information.
• full-flow-ip-The most-specific flow mask. The PFC creates and maintains a separate MLS cache entry for each IP flow. A full-flow-ip entry includes the source IP address, destination IP address, protocol, and protocol-specific Layer 4 port information.
Reference:
http://www.cisco.com/en/US/products/hw/switches/ps708/products_configuration_guide_chapter09186a008007e6ea.html#wp1020436

QUESTION 317
What statement about AH and ESP is FALSE?

A. ESP encapsulates the IP header, while AH does not.
B. ESP uses protocol 50.
C. AH uses protocol 51.
D. AH does not lent itself to a NAT environment becayse of IP header encapsulation.

Answer: A
AH-Authentication Header. A security protocol which provides data authentication and optional anti-replay services. AH is embedded in the data to be protected (a full IP datagram).
ESP-Encapsulating Security Payload. A security protocol which provides data privacy services and optional data authentication, and anti-replay services. ESP encapsulates the data to be protected.

QUESTION 318
Cisco Security Device Manager uses what protocol to provide a secure connection to the IOS device?

A. Secure Telnet
B. SSH
C. SSL
D. HTTP
E. ESP-3DES
F. AES

Answer: C
Reference:
http://www.cisco.com/en/US/products/sw/secursw/ps5318/products_data_sheet0900aecd800fd118.html

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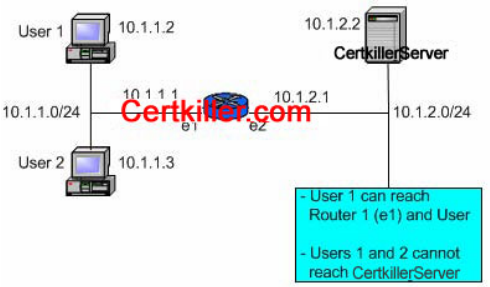
QUESTION 319
Exhibit:



The Network Administrator at Certkiller decides to take a detailed look at the traffic going through the router.
Which of the following represents the proper steps that should be taken to ensure that debugging does not overwhelm the router, while still allowing the administrator to see if the user's traffic reached the router?

A. config t
int ethernet0
no ip route-cache
access-list 1 permit ip 10.1.1.0 255.255.255.0
end
debug ip packet detail 1
B. config t
int ethernet0
no ip route-cache
access-list 1 permit 10.1.1.0 0.0.0.255
end
debug ip packet detail 1
C. config t
int ethernet1
no ip route-cache
end
debug ip packet detail 10.1.1.0 0.0.0.0.255 any
D. config t
int ethernet1
no ip route-cache
access-list 1 permit 10.1.1.0 255.255.255.0
end
debug ip packet detail 1
E. config t
int ethernet1
no ip route-cache
access-list 1 permit 10.1.1.0 255.255.255.0
end debug ip packet detail 1

Answer: B

QUESTION 320
Exhibit

In order for the DHCP client to be able to get a DHCP address upon boot, which is the minimal configuration required?

A. Enable the command "ip helper-address 10.1.1.100" under the S0 interfaces on both Router CK1 and Router CK2 .
B. Enable the command "ip helper-address 10.1.1.100" under the E0 interface on Router CK1 .
C. Enable the command "ip helper-address 255.255.255.255" under the E0 interfface on Router CK1 .
D. Enable the command "ip directed-broadcast"on all interfaces on Router CK1 and Router CK2 .

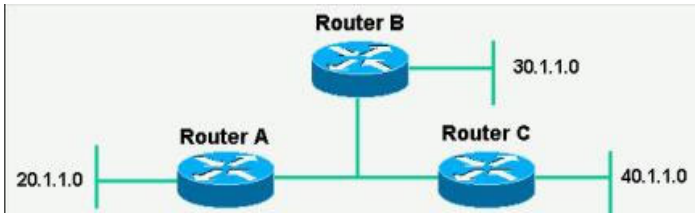
Answer: B

QUESTION 321
Using Ciscos' Security Device manager on an IOS router, what functions could you expect the security audit option to do for you?

A. Scan for and report open ports.
B. Report IOS vulnerabilities.
C. List identifiable configuration problems and suggest recommendations for fixing them.
D. Configure LAN and WAN interfaces with IP addresses and security related commands.
E. Generated and apply commands to close all unnecessary ports.

Answer: C

QUESTION 322
Exhibit:



Which of the following crypto maps and access list cpommands should be used to permit the IPSec to handle multiple peers from Router A?

A. crypto map foo 10 ipsec-isakmp
set peer B
set peer C
match address 101
set trans bar
access-list 101 permit ip 20.1.1.0 0.0.0.255 30.1.1.0 0.0.0.255
access-list 101 permit ip 20.1.1.0 0.0.0.255 40.1.1.0 0.0.0.255

B. crypto map foo 10 ipsec-isakmp
set peer B
match address 101
set trans bar
crypto map foo 20 ipsect-isakmp
set per C
match address 101
set trans bar
access-list 101 permit ip 20.1.1.0 0.0.0.255 30.1.1.0 0.0.0.255
access-list 101 permit ip 20.1.1.0 0.0.0.255 40.1.1.0 0.0.0.255
C. crypto map foo 10 ipsec-isakmp
set peer B
match address 101
set trans bar
crypto map foo 20 ipsec-isakmp
set peer C
match address 102
set trans bar
access-list 101 permit ip 20.1.1.0 0.0.255 30.1.1.0 0.0.0.255
access-list 102 permit ip 20.1.1.0 0.0.255 40.1.1.0 0.0.0.255
D. crypto map foo 10 ipsec-isakmp
set peer B
match address 101
set trans bar
crypto trans bar
crypto map foo 20 ipsec-isakmp
set peer C
match address 102
set trans bar
access-list 101 permit ip 20.1.1.0 0.0.0.255 any
access-list 102 permit ip 20.1.1.0 0.0.0.255 any
E. crypto map foo 10 ipsec-isakmp
set peer B
match address 101
set trans bar
crypto map foo 10 ipsec-isakmp
set peer C
match address 102
set trans bar
access-list 101 permit ip 20.1.1.0 0.0.0.255 any
access-list 102 permit ip 20.1.1.0 0.0.0.255 any

Answer: C

QUESTION 323
Which of the following aptly describes the Unix file /etc/shadow?

A. The Unix file/etc/shadow is referenced by login when the /etc/passwd file contains an asterisk in the third field.
B. The Unix file/etc/shadow is referenced by NIS when the /etc/passwd file contains a line with the first character of '+'.
C. The Unix file/etc/shadow is a place to store encrypted passwords without referencing the /etc/passwd file.
D. The Unix file/etc/shadow is a read-protected file referenced by login when the /etc/passwd file contains a special character in the second field.

Answer: D

Explanation: One of these is the shadow password scheme, which is used by default. The encrypted password is not kept in /etc/passwd, but rather in /etc/shadow. /etc/passwd has a placeholder, x, in this field. passwd is readable by everyone, whereas shadow is readable only by root. The shadow file also contains password aging controls. * or !! in the password field of /etc/shadow indicates that the account is disabled.

QUESTION 324
What is the best description of poison reverse?

A. It is a procedure used by OSPF to remove a network from the OSPF area.
B. Once a connection disappears, the router advertising the bad network will send an update from this network indicating an infine cost.
C. The specific network is not sent out again on the interface it was received on.
D. The network is sent back out on the interfaces it was received on, but with a metric of one more than the metric in the received update.

Answer: B

QUESTION 325
Exhibit

A network administrator sees encrypted packets coming into the network from the 10.1.2.0 network. However, the return packets destined for the 10.1.2.0 network is being sent as clear text. According to the configurations, what should the administrator suspect the problem to be?

A. The IPSec proxy is not defined correctly to encrypt outbound traffic.

B. The VPNMAP is applied to the wrong interface.
C. The default route is not allowing traffic to exit the correct interface to encrypt outbound traffic.
D. NAT is not configured correctly, so outbound traffic is not machting the IPSec proxy.

Answer: D

QUESTION 326
What is NOT a Windows NT 4.0 permission?

A. Assign Ownership
B. Take Ownership
C. Read
D. Execute
E. Change Permission

Answer: A

QUESTION 327
If the read community is known and there is SNMP connectivity to a device (without an access-list limiting this):

A. The System Description (sysDescr), which includes the full name and version identification of the system's hardware type, software operating-system, and networking software, can be ascertained through and SNMP query.
B. The entire configuration of the router can be read but not modified.
C. The passwords on the router can be modified.
D. The passwords on the router can be read, not modified. This enables the attacker to access the router as a base of operations for other attacks.

Answer: A

QUESTION 328
What mechanism is used to authenticate PPTP control channel messages?

A. AH
B. ESP
C. RSA Signatures
D. PPTP has no authentication mechanism.

Answer: D

QUESTION 329
NETBEUI is

A. a routable protocol
B. a non-routable protocol designed for small networks

C. a routing protocol designed for large networks
D. a data-link layer protocol

Answer: B

QUESTION 330
A Windows client is using NetBIOS bound to TCP/IP can try to find another computer by:

A. Sending a query to a WINS server.
B. Looking in a local file named "HOST"
C. Pinging the network
D. Sending ICMP messages.

Answer: A

QUESTION 331
What address range is correct for IP Multicast Group Addressing?

A. 224.0.0.1 through 239.255.255.254
B. 192.0.0.0 through 223.255.255.255
C. 240.0.0.1 through 255.255.255.254
D. None of the above

Answer: A

QUESTION 332
What does the acronym CBAC stand for?

A. Context Based Authentication Control
B. Context Based Access Control
C. Cisco IOS Based Authentication Control
D. Cisco based Authentication Control

Answer: B
Context-based access control (CBAC) lets the router maintain a persistent state, based on information from inspected packets, and use that state information to decide which traffic should be forwarded. CBAC is the centerpiece of the firewall feature set, and the other features in the set build on CBAC. Connection information can be gathered from CBAC and logged to a syslog server.

QUESTION 333
Whisker, nmap, and strobe are:

A. Freeware programs used to determine & map device types through SNMP
B. Port scanners
C. Distributed denial of service (DDOS) programs
D. Intrustion detection programs

Answer: A

QUESTION 334
What is the best argument for installing a stateful firewall to protect your network?

A. By default, stateful firewalls block all incoming traffic.
B. Stateful firewalls ensure that traffic returning through the router must originate from the inside (unless a static policy on the firewall overrides this behavior).
C. Stateful firewalls are the latest in security architecture and cannot be compromised.
D. Stateless firewalls are more effective than stateful ones, but are more expensive.
E. Stateful firewalls routinely change their inside network addresses for hiding addresses to the outside world.

Answer: A

QUESTION 335
In Frame Relay, what devices resend packets that do not transmit correctly?

A. Digital transmissions media cabled to monitor ports, as opposed to straight DCE signaling.
B. Network end stations running intelligent protocols
C. Network switches running SNMP management software
D. Special bridging devices within the backbone cloud

Answer: A

QUESTION 336
Routers running OSPF and sharing a common segment become neighbors on that segment. What statement regarding OSPF neighbors is FALSE?

A. The Primary and Secondary addresses on an interface allow the router to belong to different areas at the same time.
B. All routes must agree on the stub area flag in the ISPF Hello Packets.
C. Neighbors will fail to form an adjaceny if thei Hello and Dead intervals differ,.
D. Two routers will not become neighbors if the Area-ID and Authentication password do not mathc.

Answer: A

QUESTION 337
In order to avoid loops when sending routing updates, what is the correct technique to prevent a network from being forwarded on the same interface that it was learned?

A. Poison Reverse
B. The use of access-list used with distribute-list
C. Split Horizon
D. This is not a problem, since this cannot happen.

Answer: C

QUESTION 338
What command sequence should be used to turn on RADIUS in a router?

A. aaa new-model
aaa authen login default radius
radius-server host #.#.#.#
radius-server key <key>
B. aaa new-model
aaa authen login default radius
radius-server host #.#.#.#
C. radius-server host #.#.#.#
radius-srever key <key>
aaa authen login default radius
aaa new-model
D. radius-server host #.#.#.#
radius-server use-extended
login radius

Answer: A

QUESTION 339
When the PIX Firewall is configured to authenticate connections to specific hosts, the PIX and the Client being authenticated use what password type?

A. CHAP
B. MS-CHAP
C. Encrypted text
D. PAP
E. Clear text

Answer: E

QUESTION 340
The RFC 1700 defined port used for NTP is:

A. UDP 541
B. TCP 551
C. TCP and UDP 321
D. TCP and UDP 123

Answer: D

QUESTION 341
What return status will cause a AAA statement to look to next defined method for authentication?

A. Fail
B. Error
C. Access-reject
D. All of the above

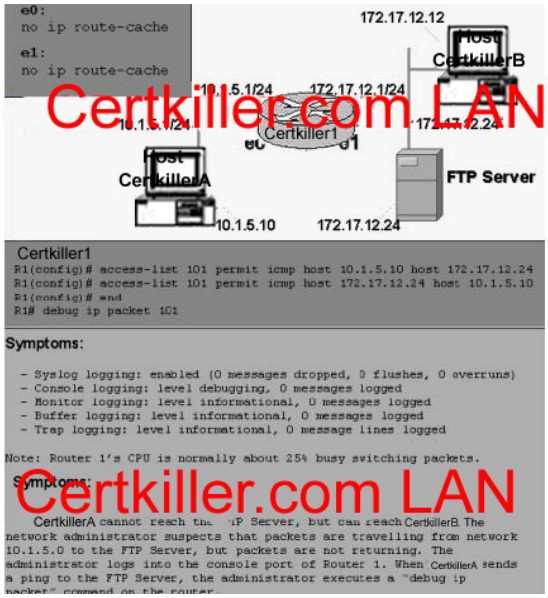
Answer: A

QUESTION 342
The ultimate target of a smurf attack should:

A. Contact the reflectors, either to ask them to reconfigure their networks to shut down the attack, or to ask for their assistance in tracing the stimulus stream.
B. Launch a retaliatory attack on the reflector network.
C. Ask the reflector network administrator to quench the attack by allowing directed broadcasts.
D. Use the access-list logging command on the inside interface of the router of the ultimate target network to determine the station inside the network launching the attack.

Answer: A

QUESTION 343
Exhibit



A network technician at Certkiller .com found and fixed a problem. However, when the administrator was removing the router debug command, the router hung suddenly. Consequently, the administrator was forced to power cycle the router to recover.
What is the most likely reason this occurred?

A. Several users on host 10.1.5.10 started FTP transfers with 172.17.12.24, while debugging was still

running.
B. When Fast-switching was re-enabled on Ethernet 0, but not on Ethernet 1, the router became unbalanced and hung.
C. Access-list 101 was removed while debugging was still running.
D. Fast switching was re-enabled while debugging was still running.
E. Logging buffered was re-enabled while debugging was still running.

Answer: C

QUESTION 344
Which record is not in DNS?

A. MX
B. PTR
C. A
D. FQDN
E. NS

Answer: D

QUESTION 345
When using Cisco Secure Intrustion Dection System, the network traffic pattern appears ordinary. However, too many false positives for a particular alarm are received. What can be done to avoid the quantity of "noise" in the future?

A. Click on unmanage for the alarm in question in the HP OpenView/NR GUI interface
B. Click on acknowledge for the alarm in question in the HPOV/NR GUI interface
C. Use eventd to decrease the alarm level severity
D. Configure a decreased alarm level severity through nrconfigure

Answer: D

QUESTION 346
Why it is important to delete IPSec Security Associations (SAs) frequently and then re-key and reestablish the SA's?

A. To reduce the chance that another IPSec machine on the network will generate the same random SPI, which will cause confusion as to which machine is the endpoint of a tunnel.
B. To reduce the risk of a brute force attack where your key can be compromised if it stays the same for too long period of a time.
C. Each time a SA is regenerated, the integrity of the link is checked. This is the only way to establish if the tunnel is still active.
D. To reduce the potential problems of counters exceeding their allocated size, which will cause them to wrap back to zero and display invalid results.

Answer: B

QUESTION 347
What statement is FALSE about Certificate Enrollment Protocol (CEP)?

A. CEP is used to obtain the CA's certificate.
B. CEP uses HTTP as a transport mechanism.
C. CEP is used to obtain CRLs.
D. CEP is used for router to router communication to check the peer's enrollment certificate.

Answer: D

QUESTION 348
In Virtual Private Dial-up Networking (VPDN), a tunnel can be established from the ISP router to the Home Gateway router based on:

A. Local authentication failure of the dial in client
B. The domain name as specified by the dial-in user or DNIS
C. The interface the inbound call is terminated on
D. The IP address requested by the dial in client
E. The negotiation of the Virtual Tunnel Control Protocol (VTCP)

Answer: B

QUESTION 349
The Kerberos protocol can support what action?

A. Encrypted LCP negotiation
B. Encrypted accounting
C. Encrypted login and session
D. Clear-text password exchange

Answer: C

QUESTION 350
When using a third party, one-time password generator, a user logs onto a NAS using DUN. What must the user do to enable new PIN mode when logging on?

A. Telnet
B. Use the post dial window
C. Check the encryption password in DUN
D. Any of the above

Answer: B

QUESTION 351
In Frame Relay, the BECN bit is set by:

A. The Frame Relay network, to inform the DTE receiving the frame that congestion was experienced in the path from source to destination.
B. The Frame Relay network, in frames traveling in the opposite direction from those frames that encountered congestion
C. The receiving DTE, to inform the Frame Relay network that it is overloaded and that the switch should throttle back
D. The sending DTE, to inform the Frame Relay network that it is overloaded and that the switch should throttle back
E. Any device that uses an extended DLCI address

Answer: B

QUESTION 352
In the Cisco Secure Intrustion Detection System/HP OpenView interface, a "yellow" sensor icon would mean:

A. A sensor daemon had logged a level 3 alarm.
B. A sensor daemon had logged a level 4 or 5 alarm.
C. The director that the sensor report to is operating in degraded mode.
D. The device that the sensor detected being attacked is inoperative as a result of the attack.

Answer: A

QUESTION 353
A stateful firewall:

A. Keeps a table of established sessions and evaluates session traffic based on this table.
B. Evaluates incoming addresses and keeps track of what is passed through the device.
C. Looks at the application layer of all protocols.
D. Makes dynamic filter changes to TCP outgoing traffic.

Answer: A

QUESTION 354
The main reason the NFS protocol is not recommended for use across a firewall or a security domain is that...

A. it is UDP based. As a result, its state is difficult to track.
B. This protocol uses a range of ports, and firewalls have difficulty opening the proper entry points to allow traffic.
C. File permissions are easily modified in the requests, and the security of the protocol is not stringent.
D. Industry technicians do not understand NFS well, but is actually appropriate to run across various security domains.
E. NFS does not have the concepts of users and permissions, so it is not secure.

Answer: C

QUESTION 355
When a Cisco Secure Intrustion Detection System Sensor communicates with a Cisco Secure Instrustion Detection System Director, what statement is FALSE?

A. If the preferred route is down, up to 255 alternate listed routes can be attempted.
B. When the sensor to director is detected as "down", packets lost during this time are buffered and retransmiteed. The packets are dropped only when the buffer is full.
C. The communication occurs via the postofficed system.
D. When no keepalives are detected, eventd on the sensor e-mails the administrator.

Answer: D

QUESTION 356
To determine if a Windows NT server has software listening on a particular port, for example udp/514, the command could be:

A. netstat -s|find udp
B. netstat -an|grep 514
C. edit c:\WINNT\system32\drivers\etc\SERVICES
D. netstat -an|findstr 514

Answer: D

QUESTION 357
NAT overload does not work well when:

A. Authentication is involved with outbound HTTP.
B. One-to-one NAT is used on the same firewall.
C. The number of inside hosts exceeds the number of addresses in the NAT pool
D. Multimedia applications have an inbound data stream that is different from the outgoing control path.

Answer: D

QUESTION 358
Which statement about transport layer protocols is true?

A. TCP is connectionless.
B. UDP is a datagram protocol,.
C. TCP has a larger MTU.
D. TCP is easier to implement.
E. UDP is a stream protocol.

Answer: B

QUESTION 359
In the IOS Firewall Feature Set, CBAC does not:

A. Maintain state information for individual connections
B. Use state information to allow or deny network traffic
C. Inspect ICMP
D. Dynamically create and delete openings in the firewall

Answer: C

QUESTION 360
What technique could be used to resolve the problem of large routing table updates caused by the use of many Class C addresses?

A. Variable-Length Subnet Masks
B. Classless Inter-Domain Routing
C. Propagate all the subnets to ensure reachability to all addresses.
D. Use a Link State routing protocol.

Answer: B

QUESTION 361
When a Catalyst 5000 authenticates PPP, the method it will use for password authenticationis:

A. PAP
B. CHAP
C. Clear
D. None of the above, since the Catalyst does not authenticate PPP

Answer: D

QUESTION 362
A Kerberos user defined in the Kerberos database is called a:

A. Principal
B. Kerberos user
C. User
D. Authenticator
E. Accessor

Answer: A

QUESTION 363
What is the best description of the isdn caller 551212 command?

A. This is a global command that checks to see if the caller ID of an inbounc call is 5551212.
B. This is an interface command that permits ISDN calls to be placed to 5551212.
C. This is a global command that permits ISDN calls to be placed to 5551212.
D. This is an interface command that denies ISDN calls placed to 5551212.
E. This is an interface command that permits ISDN calls from 5551212.

Answer: E

QUESTION 364
In the Security Forums, Social Engineering refers to what concept?

A. Creating security products that are easy to use, and based on typical social interactions for the User Interface schema.
B. Bringing greater creativity to engineering groups through social interaction and stimulus.
C. Breaking into systems by tricking people into providing the necessary information, sucha s codes, pass phrases, or even personal information.
D. Breaking into systems using easily guessed passwords, or a list of passwords from a dictionary.
E. Breaking into systems by learning the cryptography methods, and deciphering the secrets.

Answer: C

QUESTION 365
From an outside Windows NT server, the network administrator can ping an internal NT Server behind an application firewall. The administrator wishes to browse the various shares on the inside NT Server, but receives an error message indicating the server cannot be found. In which ways can this desired functionality be achieved? Seelct all that apply.

A. Use an LMHOSTS file with the name, IP address, and Domain of the internal NT Server
B. Make sure the firewall has UDP 137, 138, and TCP 139 ports open to the outside server
C. Use an inside host running an FTP server
D. Use an outside host running NetBIOS Name Services (NBNS)

Answer: A, B, D

QUESTION 366
What statement about AH and ESP is FALSE?

A. ESP encapsulates the IP header, while AH does not.
B. ESP uses protocol port 50.
C. AH uses protocol port 51.
D. AH does not lend itself to a NAT environment because of IP header encapsulation.

Answer: A

QUESTION 367
If two routers connected to the same Ethernet are configured to run HSRP (Hot Standby Router

Protocol) in the same group number, which router's MAC address will be associated with the virtual IP address?

A. It depends on which router is active.
B. Neither - a virtual MAC address will be assigned beased on the group number, unless the routers are configured to use their burned in addresses (BIA).
C. The routers will negotiate and decide automatically which MAC address to use based on the routers' ID.
D. Both routers' MAC addresses will be associated with the virtual IP address.
E. Neither - the hosts will broadcast all traffic which needs to travel off-segment.

Answer: B

QUESTION 368
The master Kerberos server is also known as:

A. The router configured for Kerberos
B. The Key Distribution Center (KDC)
C. The Realm Master (RM)
D. The TGT server

Answer: B

QUESTION 369
Exhibit:

Router Certkiller 3 and Certkiller 4 are both advertising 10.1.3.0/24 with equal metrics through one of the interior gateway protocols.
What is the result?

A. Router Certkiller 2 will have two routes in its routing table for 10.1.3.0/24, and will alternate sending packets over both paths. However, the patch selected for sending packets will depend on the switching mode configured.
B. Router Certkiller 2 will have only one path to 10.1.3.0/24 in the routing table.
C. Router Certkiller will have two paths in its routing table, but will only use one path for forwarding traffic.
D. Router Certkiller 2 will have two paths in the routing table. It will always copy each packet it receives destined for 10.1.3.0/24 and will send the copies down both paths simultaneously.
E. The number of paths in Router Certkiller 2's routing table depends on the IGP routing protocol in use.

Answer: A
Explanation : By configuring ip route-cache command in Ethernet interface, it enables fast switching
The route cache allows outgoing packets to be load-balanced on a per-destination basis rather than on a perpacket

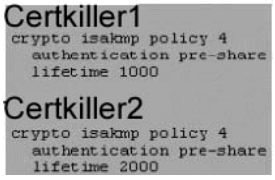
basis.
Not E:
It is not IGP protocol issue at all. For any routing protocols such as RIP/IGRP/OSPF/EIGRP, they support equal path load balancing.
Refer to Routing TCP/IP Volume 1 by Jeff Doyle for equal cost load sharing (page 109--112).

QUESTION 370
If the first line of output from show interface serial 0 command read "serial 0 up, line protocol down", what might this indicate?

A. This should never happen.
B. Keepalives are not being received from the remote router.
C. The CSU/DSU is powered off.
D. The remote CSU/DSU is powered off.
E. The router serial cable is disconnected.

Answer: B

QUESTION 371
Exhibit:



Assuming the configuration shown in the exhibit, what s the expected behavior of ISAKMP regarding security lifetimes (if Router Certkiller 2 is the initiator)?

A. ISAKMP negotiation will fail because the routers' lifetimes do not match.
B. ISAKMP negotiation will succeed. If the two peers' policy lifetimes are not the same, the initiating peer's lifetime must be longer and the responding peer's lifetime must be shorter. As a result, the shorter lifetime will be used.
C. ISAKMP negotiation will fail. If the two peers' policy lifetimes are not the same, the initiating peer's lifetime must be shorter and the responding peer's lifetime must be longer. As a result, the longer liftetime will be used.
D. ISAKMP negotiation will succeed. The initiating peer will re-key at 2000 seconds and the responding peer will re-key at 1000 seconds.
E. ISAKMP negotiation will succeed. ISAKMP will compute the average of the two lifetimes and rekeying will happen every 1500 seconds.

Answer: B

QUESTION 372
Select the protocols that use Link State routing: (multiple answer)

A. AURP
B. OSPF

C. NetWare Link Services Protocol (NLSP)
D. IS-IS
E. EIGRP

Answer: B, C, D

QUESTION 373
You work as a network administrator for Certkiller .com. You are viewing errors from an Ethernet interface on a Cisco router. The errors appear on the interface every 15 seconds and the up arrow in the terminal emulation program is not working.
What alias command would allow the administrator to see the errors, without having to type the extended show command?

A. alias exec si show interface ethernet(0)
B. alias exec si show ip interface ethernet(0)
C. alias exec si show error ethernet(0)
D. alias shell si show interface ethernet(0)
E. alias shell si show ip interface ethernet(0)

Answer: A

QUESTION 374
The name for an attack where network packets are intercepted by an attacker before they are transmitted to their final destination is:

A. Highjacking
B. Man in the middle
C. Denial of service
D. Trojan horse

Answer: B

QUESTION 375
A Network Scanner can be used:

A. To identify network exploit signatures.
B. To identify network vulnerabilities
C. To report network intrusion
D. To identify network intruders
E. To notifiy Security Managers when network perimeter has been compromised

Answer: B

QUESTION 376
What is the proper way to use IPSec to encrypt IPX traffic?

A. Define an IPX extended access list in the range 900-999 and add match address #, where 900-999 to the crypto map
B. Define a GRE tunnel which will carry the IP and IPX traffic, then apply the crypto map to the tunnel interface. Finally, define a crypto access control list that matches the tunnel itself.
C. Define a GRE tunnel which will carry the IP and IPX traffic, then apply the crypto map to the physical interface associated with the tunnel. Finally, define a crypto access control list that matches the tunnel itself.
D. Define an IPX extended access list in the range 900-999 and add match address #, where # is the 900-999 to the transform set.

Answer: D

QUESTION 377
For the spanning tree algorithm, a bridige builds part of its forwarding table based upon:

A. Destination MAC addresses
B. 802.2 headers
C. Source MAC addresses
D. The Ethernet type fied
E. The SNAP field

Answer: C

QUESTION 378
Which statements are correct? Select two.

A. IGRP supports discontiguous networks
B. IGRP is a distance vector protocol.
C. RIP v2 is a classful protocol.
D. If there is only one area in an OSPF network, it can be assigned area 1.

Answer: B, D

QUESTION 379
When a user logs in and out of a Unix system, where is the information stored?

A. utmp and messages
B. wtmp and lastlog
C. /var/adm/acct
D. /etc/login & /usr/bin/login

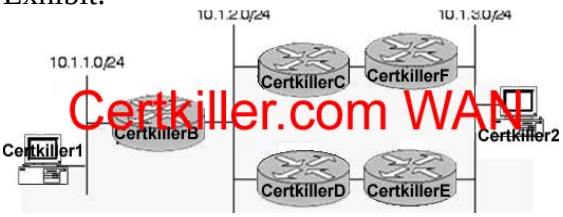
Answer: B

QUESTION 380
At what layer of the OSI model is data secured with IPSec tunnel mode?

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

Answer: D

QUESTION 381
Exhibit:



Routers Certkiller E and Certkiller F are running HSRP (Hot Standby Router Protocol). Router Certkiller E has a higher priority, and both routers have standby preempt configured. Since Router Certkiller E is normally the active reouter, what IP address should host Certkiller 2 use for its default gateway?

A. 10.1.3.1
B. Router Certkiller E's IP address, since it is normally active; Router Certkiller F will take over Router Certkiller E's address if it fails.
C. Router Certkiller E's IP address; the active router will take over the standby routeräs IP address until it fails.
D. The virtual address configured when enable HSRP
E. The virtual address assigned by HSRP; this address is dependant on the group number configured.

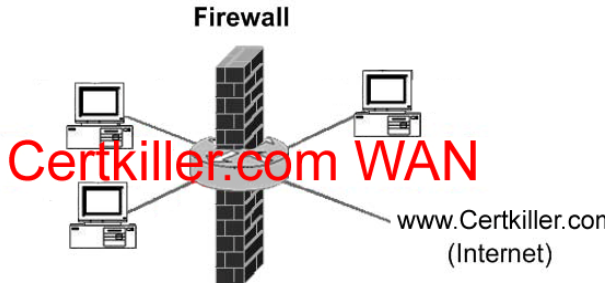
Answer: D

QUESTION 382
What security programs can effectively protect your network against password sniffer programs? Select three.

A. IPSec, because it encrypts data
B. One time passwords, because the passwords always change
C. RLOGIN, because it does not send passwords
D. Kerberos, because it encrypts passwords
E. Use of POP e-mail, because it is better than using SMTP.

Answer: A, B, D

QUESTION 383
Exhibit



A network engineer is troubleshootinga connectivity problem between hosts Certkiller A and Certkiller B. The following conditions exist:
• Certkiller A can ping the firewall, but cannot ping Certkiller B
• Certkiller B can ping both the firewall and www.cisco.com
• The firewall can ping www. Certkiller .com
• Certkiller C can ping the firewall and www. Certkiller .com
• Certkiller A and Certkiller C have the same permissions on the firewall?
What is the most likely problem?

A. Routing protocols in the network are not set up properly, and not propagating across the firewall,.
B. Certkiller A has an incorrect default gateway configured.
C. Certkiller B has an incorrect default gateway configured.
D. Certkiller C has an incorrect default gateway configured.
E. The firewall has an incorrect default gateway configured.

Answer: B

QUESTION 384
A router interface address is 180.60.45.96 with a mask of 255.255.255.224. What configuration statement will allow this interface to participate in OSPF Area 0?

A. router ospf 1
network 180.60.45.96 255.255.255.32 area 0
B. router ospf 1
network 180.60.45.96 0.255.255.224 area 0
C. router ospf 1
network 180.60.45.96 0.0.0.31 area 0
D. router ospf 1
network 180.60.45.96 0.0.0.224 area 0

Answer: B

QUESTION 385
IPSec supports encryption of broadcasts and multicasts, true or false?

A. True
B. False

Answer: B

Explanation: Much IP voice and video traffic is transmitted in multicast. IPsec does not natively support multicast traffic, which means voice and video traffic will be dropped when traversing the IPsec VPN.
Restrictions---At this time, IPSec can be applied to unicast IP
Datagrams only. Because the IPSec Working Group has not yet addressed the issue of group key distribution, IPSec does not currently work with multicasts or broadcast IP datagrams.

QUESTION 386
Will CBAC support stateful inspection of IPSec traffic?

A. No, CBAC does not support this.
B. Yes, CBAC can be configured to support IPSec.
C. Yes, use the inspection rule "ip inspect name ccie ipsec".
D. None of the above.
E. All of the above.

Answer: A

Explanation: CBAC does not inspect ipsec traffic therefore you need to allow the traffic in the inboud ACL. Be sure to allow esp protocol and udp port 500. Cisco IOS 12.0 Network Security", the authors state that CBAC is compatible with IPSec provided the tunnel end-point is on the router, and not a "pass-through" config.

QUESTION 387
Which of the following do not support local authentication?

A. authentication proxy
B. lock-and-key
C. login local
D. pptp vpn

Answer: A

Explanation: Use Lock-and-key in network environments that might benefit from local authentication and a limited number of router-based access control policies based on host addresses

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QUESTION 388
Which Cisco security filtering method can "intelligently filter based on application-layer protocol session information"?

A. CBAC
B. ACL
C. IDS
D. Auth-proxy
E. PAM
F. Asec

Answer: A

Explanation: PAM=port adapter module (PAM) To configure CBAC inspection for an application-layer protocol, use one or both of the following global configuration commands:

QUESTION 389
The routing protocol on your non-broadcast frame-relay interface isn't functioning correctly with all of its neighbors on the frame-relay network. What could be one issue that should come to mind?

A. Split-horizon
B. Discontiguous networks
C. Classful network
D. VLSM
E. Default routing

Answer: A

Explanation:
IP split horizon checking is disabled by default for Frame Relay encapsulation so routing updates will come in and out the same interface An exception is the Enhanced Interior Gateway Routing Protocol (EIGRP) for which split horizon must be explicitly disabled. Configuring Frame Relay subinterfaces ensures that a single physical interface is treated as multiple virtual interfaces. This capability allows you to overcome split horizon rules so packets received on one virtual interface can be forwarded to another virtual interface, even if they are configured on the same physical interface.

QUESTION 390
What is the decimal equivalent of 10101100 01100000 00010011 10000101 ?

A. 172.96.19.133
B. 192.96.19.133
C. 172.96.19.132
D. 172.96.18.133
E. 172.192.19.133

Answer: A

Explanation:
128 64 32 16 8 4 2 1 128 64 32 16 8 4 2 1 128 64 32 16 8 4 2 1
128 64 32 16 8 4 2 1
1 0 1 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0
1 0 0 1 1 1 0 0 0 0 1 0 1
172 96
19 133

QUESTION 391
Which of the following are CBAC supported protocols? (Select all that apply)

A. FTP
B. RealAudio
C. RTSP
D. SMTP
E. SQL*NET
F. TFTP

Answer: A, B, C, D, E, F

Explanation: You can configure CBAC to inspect the following types of sessions: All TCP sessions, regardless of the application-layer protocol (sometimes called "single-channel" or "generic" TCP inspection) All UDP sessions, regardless of the application-layer protocol (sometimes called "single-channel" or "generic" UDP inspection) You can also configure CBAC to specifically inspect certain application-layer protocols. The following application-layer protocols can all be configured for CBAC CU-SeeMe (only the White Pine version) FTP H 323 (such as NetMeeting, ProShare) Java UNIX R-commands (such as rlogin, rexec, and rsh) RealAudio RPC (Sun RPC, not DCE RPC or Microsoft RPC) SMTP SQL*Net StreamWorks TFTP VDOLive In the case of RTSP inspection, session output can vary based on the multimedia protocol and the transport mode.

QUESTION 392
You want to filter routing updates. What are three possibilities that should come to mind? (Select all that apply)

A. route-map
B. distribute-list
C. filter-list
D. policy-map
E. route-filter
F. distribute-filter

Answer: A, B, C

Explanation: Use the policy-map command to specify the name of the policy map to be created, added to, or modified before you can configure policies for classes whose match criteria are defined in a class map. Entering the policy-map command enables QoS policy-map configuration mode in which you can configure or modify the class policies for that policy map. Route filters, along with route patterns, use dialed-digit strings to determine how a call is handled. You can only use route filters with North American Numbering Plan (NANP) route patterns; that is, route patterns that use an at symbol (@) wildcard.

QUESTION 393
Exhibit:
Signature audit statistics [process switch:fast switch]
signature 2000 packets audited: [0:43]
signature 2001 packets audited: [558:2281]
signature 2004 packets audited: [1112:8803]
signature 2005 packets audited: [6:136]

signature 2006 packets audited: [1:2]
signature 2151 packets audited: [0:99]
signature 3040 packets audited: [0:1]
signature 3101 packets audited: [0:1100]
signature 3103 packets audited: [0:1]
Interfaces configured for audit 0
Session creations since subsystem startup or last reset 9712
Current session counts (estab/half-open/terminating) [0:0:0]
Maxever session counts (estab/half-open/terminating) [14:12:2]
Last session created 5w5d
Last statistic reset never
Host ID:2, Organization ID:1234, SYN pkts sent:749422,
ACK pkts sent:0, Heartbeat pkts sent:0, Heartbeat ACK pkts sent:0,
Duplicate ACK pkts received:0, Retransmission:0, Queued pkts:0
Look at the attached exhibit. What command is this output generated by?

A. show ip audit statistics
B. show ip verify statistics
C. show ip ids statistics
D. show audit statistics
E. show ids statistics

Answer: A

Explanation:
The following displays the output of the show ip audit statistics command:
Signature audit statistics [process switch:fast switch]
signature 2000 packets audited: [0:2]
signature 2001 packets audited: [9:9]
signature 2004 packets audited: [0:2]
signature 3151 packets audited: [0:12]
Interfaces configured for audit 2
Session creations since subsystem startup or last reset 11
Current session counts (estab/half-open/terminating) [0:0:0]
Maxever session counts (estab/half-open/terminating) [2:1:0]
Last session created 19:18:27
Last statistic reset never
HID:1000 OID:100 S:218 A:3 H:14085 HA:7114 DA:0 R:0
The Following show commands are not real commands
show ip verify statistics
show ip ids statistics
show audit statistics
show ids statistics

QUESTION 394
Your internal users cannot access hosts in the Internet, by name, through the PIX. What command is

probably missing?

A. alias
B. conduit
C. dns
D. route

Answer: A

Explanation:
The alias command has two possible functions: It can be used to do "DNS Doctoring" of DNS replies from an external DNS server. In DNS Doctoring, the PIX "changes" the DNS response from a DNS server to be a different IP address than the DNS server actually answered for a given name. This process is used when we want the actual application call from the internal client to connect to an internal server by its internal IP address. It can be used to do "Destination NAT" (dnat) of one destination IP address to another IP address. The DNS answer has some merit but it is not a command

---

QUESTION 395
What is the command that was run, resulting in the output in the attached exhibit?

A. crypto key generate rsa usage-keys
B. crypto key generate rsa
C. show crypto key mypubkey rsa
D. crypto isakmp identity address

Answer: A

Explanation: crypto key generate rsa usage-keys The name for the keys will be: myrouter.example.com Choose the size of the key modulus in the range of 360 to 2048 for your Signature Keys. Choosing a key modulus greater than 512 may take a few minutes. How many bits in the modulus[512]? Generating RSA keys.... [OK]. Choose the size of the key modulus in the range of 360 to 2048 for your Encryption Keys. Choosing a key modulus greater than 512 may take a few minutes. How many bits in the modulus[512]? Generating RSA keys.... [OK]. The following example generates general-purpose RSA keys. (Note, you cannot generate both special-usage and general-purpose keys; you can generate only one or the other.) NOTICE the difference crypto key generate rsa The name for the keys will be: myrouter.example.com Choose the size of the key modulus in the range of 360 to 2048 for your General Purpose Keys. Choosing a key modulus greater than 512 may take a few minutes. How many bits in the modulus[512]? Generating RSA keys.... [OK].

QUESTION 396
With PIX OS version 6.2, how many levels of command authorization are there?

A. 1
B. 16
C. 255
D. 15

E. 2, exec and enable.

Answer: B

Explanation: Most commands in the PIX are at level 15, although a few are at level 0. To show current settings for all commands, issue the following command show privilege all

---

QUESTION 397
What product allows you to administer user authentication, accounting, and authorization?

A. ACS
B. PDM
C. CSPM
D. RADIUS

Answer: A

Explanation:
ACS offers centralized command and control for all user authentication, authorization, and accounting PDM Cisco PIX Device Manager (PDM) offers enterprise and service provider users the features they need to easily manage Cisco PIX Firewalls. CSPMmanaging policy through your Managed Devices is the goal of using CSPM button Remote Authentication Dial-In User Service is a distributed client/server system that secures networks against unauthorized access. (it is a protocol like tacacs+, not an application)

QUESTION 398
What is recommended file, accessible only by root, where hashed unix passwords are stored?

A. passwd
B. /etc/shadow
C. /etc/shadow/passwd
D. /etc/password
E. /var/adm/shpass
F. /etc/passwd

Answer: B

Explanation:
One of these is the shadow password scheme, which is used by default. The encrypted password is not kept in /etc/passwd, but rather in /etc/shadow. /etc/passwd has a placeholder, x, in this field. passwd is readable by everyone, whereas shadow is readable only by root. The shadow file also contains password aging controls.

QUESTION 399
Which of these best describe IPSec? (Select all that apply)

A. confidentiality
B. integrity

C. origin authentication
D. anti-replay
E. CA

Answer: A, B, C, D

Explanation:
IPSec provides the following network security services. These services are optional. In general, local security policy will dictate the use of one or more of these services: Data Confidentiality-The IPSec sender can encrypt packets before transmitting them across a network. Data Integrity-The IPSec receiver can authenticate packets sent by the IPSec sender to ensure that the data has not been altered during transmission. Data Origin Authentication-The IPSec receiver can authenticate the source of the IPSec packets sent. This service is dependent upon the data integrity service. Anti-Replay-The IPSec receiver can detect and reject replayed packets

---

QUESTION 400
On a PIX firewall, which level is considered least secure?

A. 0
B. 100
C. 1
D. 99
E. 255

Answer: A

Explanation: Either 0 for the outside network or 100 for the inside network. Perimeter interfaces can use any number between 1 and 99. By default, PIX Firewall sets the security level for the inside interface to security100 and the outside interface to security0. The first perimeter interface is initially set to security10, the second to security15, the third to security20, and the fourth perimeter interface to security25 (a total of 6 interfaces are permitted, with a total of 4 perimeter interfaces permitted). For access from a higher security to a lower security level, nat and global commands or static commands must be present. For access from a lower security level to a higher security level, static and access-list commands must be present. Interfaces with the same security level cannot communicate with each other. We recommend that every interface have a unique security level.

QUESTION 401
What is the purpose of a CA? (Select all that apply)

A. Manage and issue certificates.
B. Simplify administration of IPSec devices.
C. Define traffic flow.
D. Help IPSec configurations to scale.
E. Monitor IPSec statistics between sa's.

Answer: A, B

Explanation: Unlike RADIUS and TACACS+ authentication servers, Certificate Authority servers rely on a third-party authority to establish the trust relationship between two network objects that communicate

---

QUESTION 402
You are trying to browse the Internet and your connection is going through routers communicating via a GRE tunnel. The connections between the routers and GRE tunnels are up but accessing the Internet still doesn't work. What is the most likely cause of the problem? (Select all that apply)

A. Change the maximum segment size.
B. Use different IP addresses.
C. You are using incorrect IP addresses.
D. Hackers
E. You need to use the command "ip tcp adjust-mss".
F. Your link is down.

Answer: A, E

Explanation: When GRE tunnels are created, the default Maximum Transfer Unit (MTU) size is 1,514 bytes; this size is fixed regardless of the physical interfaces. Physical interfaces have different MTU sizes When the OSPF routing protocol runs over GRE tunnels with different physical interfaces having different MTU sizes, initialization fails due to an MTU mismatch. Change the TCP MSS option value on SYN packets that traverse through the router (available in IOS 12.2(4)T and higher). This reduces the MSS option value in the TCP SYN packet so that it's smaller than the value in the ip tcp adjust-mss value command, in this case 1436 (MTU minus the size of the IP, TCP, and GRE headers). The endhosts now send TCP/IP packets no larger than this value.

QUESTION 403
What are the three components that the Cisco Secure IDS consists of? (Select all that apply)

A. sensor
B. director
C. post office
D. log server
E. encryption
F. firewall

Answer: A, B, C

QUESTION 404
When going from the outside network to the inside network, what occurs first, encryption or NAT translation?

A. NAT translation
B. encryption

Answer: A

QUESTION 405
Which command would enable OSPF on your router?

A. router ospf {process-id}
B. router ospf
C. enable router ospf {process id}
D. ip router ospf {as number}
E. router ospf interface e0/0

Answer: A

Explanation: To configure an OSPF routing process, use the router ospf global configuration command. To terminate an OSPF routing process, use the no form of this command. router ospf process-id router ospf 1 network 4.0.0.0 0.255.255.255 area 0

QUESTION 406
What command or commands will set a password that must be entered to access the router command mode with the prompt "Router#" (Select all that apply)

A. enable password
B. enable secret
C. enable secret password
D. secret password
E. password enable-mode

Answer: A, B

Explanation: By default, the router ships without password protection. Because many privileged EXEC commands are used to set operating parameters, you should password-protect these commands to prevent unauthorized use. You can use two commands to do this: enable secret password (a secure, encrypted password) enable password (a less secure, unencrypted password) You must enter an enable secret password to gain access to privileged EXEC mode commands. router#

QUESTION 407
Which of the following are common guidelines to consider when configuring a firewall? (Select all that apply)

A. Disable cdp.
B. Set console, line, and enable passwords.
C. Restrict telnet access.
D. Turn off NTP.
E. No ip source-route.
F. Enable directed broadcasts.

Answer: A, B, C, D, E

Explanation:
Don't enable any local service (such as SNMP or NTP) that you don't use. Cisco Discovery Protocol (CDP) and Network Time Protocol (NTP) are on by default, and you should turn these off if you don't need them. You should also disable source routing. For IP, enter the no ip source-route global configuration command. Disabling source routing at all routers can also help prevent spoofing. Normally, you should disable directed broadcasts for all applicable interfaces on your firewall and on all your other routers. For IP, use the no ip directed-broadcast command. Rarely, some IP networks do require directed broadcasts; if this is the case, do not disable directed broadcasts.

QUESTION 408
What can Unicast RPF help prevent? (Select all that apply)

A. Smurf
B. Tribe Flood Network
C. Snoop
D. Packet ARP Smacking

Answer: A, B

Explanation: The Unicast RPF feature helps mitigate problems caused by the introduction of malformed or forged (spoofed) IP source addresses into a network by discarding IP packets that lack a verifiable IP source address. The two main components to the smurf denial-of-service attack are the use of forged ICMP echo request packets and the direction of packets to IP broadcast addresses.
button TFN has the capability to generate packets with spoofed source IP addresses

---

QUESTION 409
Which of these commands might tell you if ssh has been configured on your router? (Select all that apply)

A. show ip ssh
B. show crypto ssh
C. show ssh
D. show crypto ip ssh

Answer: A, C

Explanation: To display the version and configuration data for Secure Shell (SSH), use the show ip ssh privileged EXEC command. To display the status of Secure Shell (SSH) server connections, use the show ssh privileged EXEC command.

QUESTION 410
If you don't want a third party to be able to prove your communication occurred, what should you use as your IKE authentication method?

A. encrypted nonces
B. signatures
C. CA

D. Diffie-Hellman Group 1

Answer: A

Explanation: RSA signatures and RSA encrypted nonces-RSA is the public key cryptographic system developed by Ron Rivest, Adi Shamir, and Leonard Adleman. RSA signatures provides non-repudiation while RSA encrypted nonces provide repudiation. In general terms, the term "non-repudiation" crypto-technically means: In authentication, a service that provides proof of the integrity and origin of data, both in an unforgeable relationship, which can be verified by any third party at any time; or, In authentication, an authentication that with high assurance can be asserted to be genuine, and that can not subsequently be refuted. (Emphasis added) [14]

QUESTION 411
What is Unicast RPF?

A. Unicast RPF provides a secure command line interface for connections between host and remote.
B. Unicast RPF allows per user authentication, policies, and access privileges.
C. Unicast RPF provides 16 levels of security for assigning IOS commands and usernames.
D. Unicast RPF provides a solution to DoS attacks.
E. Unicast RPF provides a problem concerning DoS attacks.

Answer: D

Explanation: The Unicast RPF feature helps mitigate problems caused by the introduction of malformed or forged (spoofed) IP source addresses into a network by discarding IP packets that lack a verifiable IP source address.

QUESTION 412
Which encryption method has a 168 bit encryption key?

A. DES
B. ssh
C. MD5
D. IPSec
E. 3DES

Answer: E

Explanation: 56-bit Data Encryption Standard (DES) 168-bit 3DES algorithms

---

QUESTION 413
Routers operate on what layer?

A. 3
B. 2
C. 1

D. 4
E. 5
F. 7

Answer: A

Explanation: Network Layer

QUESTION 414
In Solaris 7, where are failed login attempts stored?

A. /var/adm/loginlog
B. /var/adm
C. /etc/adm/loginlog
D. /etc/wtmp
E. /var/adm/sulog

Answer: A

QUESTION 415
What allows clients to use authentication methods not supported by the NAS?

A. PPP
B. EAP
C. LCP
D. NAS
E. BGP
F. AAA

Answer: B

Explanation: LCP, BGP, AAA really dont apply

QUESTION 416
What are Dynamic access-lists also known as (select the best answer)?

A. lock-and-key
B. reflexive access-lists
C. access-lists
D. firewalls
E. acls

Answer: A

Explanation: Configuring Lock-and-Key Security (Dynamic Access Lists)

QUESTION 417
Which command would enable login authentication using a local password?

A. aaa authentication login default enable
B. aaa authentication login default krb5
C. aaa authentication login default line
D. aaa authentication login default local

Answer: D

Explanation: Set login authorization to default to local. aaa authentication login default local

---

QUESTION 418
What feature of a PIX firewall allows for "user-based authentication of inbound or outbound connections but then allows the traffic to flow quickly and directly"?

A. proxy
B. nat
C. pat
D. ASA
E. cut-through-proxy
F. ip audit

Answer: E

Explanation: Cut-Through proxies let the PIX Firewall perform dramatically faster than proxy-based servers while maintaining session state. Cut-Through proxy also lowers the cost of ownership by reusing the existing authentication database.

QUESTION 419
What provides integrated Intrustion detection and firewall support at every perimeter of the network?

A. IOS Firewall
B. CSPM
C. ACS
D. PDM
E. IOS IDS Host
F. IDS Host Sensor

Answer: A

Explanation:

QUESTION 420
Which of the following are used to encrypt packet data?

A. DES
B. MD5
C. HMAC
D. SHA
E. AH

Answer: A

Explanation: Data Encryption Standard. Standard cryptographic algorithm developed by the U.S. National Bureau of Standards.

QUESTION 421
With non-repudiation, what can be proven and what applies? (Select all that apply)

A. Communication took place.
B. Communication never took place.
C. Your connection can be traced.
D. Your connection cannot be traced.

Answer: A, C

Explanation: In general terms, the term "non-repudiation" crypto-technically means: In authentication, a service that provides proof of the integrity and origin of data, both in an unforgeable relationship, which can be verified by any third party at any time; or, In authentication, an authentication that with high assurance can be asserted to be genuine, and that can not subsequently be refuted. (Emphasis added) [14]

QUESTION 422
IPSec can provide which of the following services? (Select all that apply)

A. Data Confidentiality
B. Data Integrity
C. Data Origin Authentication
D. Anti-Replay
E. Certificate Authority
F. IKE

Answer: A, B, C, D

Explanation: IPSec provides the following network security services. These services are optional. In general, local security policy will dictate the use of one or more of these services: Data Confidentiality-The IPSec sender can encrypt packets before transmitting them across a network. Data Integrity-The IPSec receiver can authenticate packets sent by the IPSec sender to ensure that the data has not been altered during transmission. Data Origin Authentication-The IPSec receiver can authenticate the source of the IPSec packets sent. This service is dependent upon the data integrity service. Anti-Replay-The IPSec receiver can detect and reject replayed packets

---

QUESTION 423
What are two good reasons to use RIP V2? (Select all that apply)

A. MD5 authentication
B. VLSM
C. FLSM
D. IGRP
E. clear-text authentication

Answer: A, B

Explanation: FLSM is RIP 1and IGRP is a routing protocol (like rip)

QUESTION 424
Which of these features of the PIX OS will help prevent DoS attacks on AAA servers?

A. Flood Guard
B. Flood Defender
C. AAA Defender
D. Flood AAA Defender
E. FragGuard

Answer: A

Explanation: The Flood Guard feature controls the AAA service's tolerance for unanswered login attempts. This helps to prevent a denial of service (DoS) attack on AAA services in particular. This feature optimizes AAA system use. It is enabled by default and can be controlled with the floodguard 1 command. The Flood Defender feature protects inside systems from a denial of service attack perpetrated by flooding an interface with TCP SYN packets FragGuard and Virtual Re-assembly is a feature that provides IP fragment protection.This feature uses syslog to log any fragment overlapping and small fragment offset anomalies, especially those caused by a teardrop.c attack.

QUESTION 425
Exhibit:
aaa new-model
aaa authentication login default local
enable password cisco
username backup privilege 7 password 0 backup
username root privilege 15 password 0 router
privilege exec level 7 ping
Look at the attached exhibit. The root user forgets his login password but still knows the enable password and the username/password combination for the backup account. What can the root user do to fix his password problem?

A. Login with the backup account and use the enable password to view or change his password.
B. There is nothing he can do.

C. He will have to get the backup user to do it for him.
D. The enable password and the root password are the same so this is a moot point.
E. There is no login enabled on the console port so no one can get in.

Answer: A

Explanation: username backup states that there is an account called backup. enable password allowed him to entry to priviliged mode

---

QUESTION 426
What is this describing?
"lets you securely interconnect geographically distributed users and sites over an unsecure network"

A. VPN
B. IPSEC
C. IKE
D. TUNNEL
E. GRE

Answer: A

Explanation: Virtual Private Network. Enables IP traffic to travel securely over a public TCP/IP network by encrypting all traffic from one network to another. A VPN uses "tunneling" to encrypt all information at the IP level.

QUESTION 427
What are the three actions possible for the Cisco IOS IDS to take when a signature match occurs? (Select all that apply)

A. alarm
B. drop
C. reset
D. deny
E. permit
F. warning

Answer: A, B, C

Explanation: When one or more packets in a session match a signature, Cisco IOS IDS may perform the following configurable actions: Alarm: sends an alarm to a syslog server or Net Ranger Director Drop: drops the packet Reset: resets the TCP connection

---

QUESTION 428
What are triggered updates?

A. When a router waits until the holddown is over before sending an update to another router.

B. When a router sends an update out all interfaces as soon as the route is unavailable.
C. Waiting for the next update before sending out an "unreachable" message.

Answer: B

Explanation:

QUESTION 429
Crypto access lists are used to do what?

A. Determine what traffic will and will not be protected by IPSec.
B. Determine what traffic will not be protected by Crypto.
C. Determine what traffic is allowed in and out of your interface.
D. As a firewall.

Answer: A

Explanation: Crypto access lists are used to define which IP traffic will be protected by crypto and which traffic will not be protected by crypto. The access lists themselves are not specific to IPSec. It is the crypto map entry referencing the specific access list that defines whether IPSec processing is applied to the traffic matching a permit in the access list. Crypto access lists associated with IPSec crypto map entries have four primary functions: Select outbound traffic to be protected by IPSec (permit = protect). Indicate the data flow to be protected by the new security associations (specified by a single permit entry) when initiating negotiations for IPSec security associations. Process inbound traffic to filter out and discard traffic that should have been protected by IPSec. Determine whether or not to accept requests for IPSec security associations on behalf of the requested data flows when processing IKE negotiation from the peer. (Negotiation is only done for ipsecisakmp crypto map entries.) In order for the peer's request to be accepted during negotiation, the peer must specify a data flow that is "permitted" by a crypto access list associated with an ipsec-isakmp crypto map command entry. If you want certain traffic to receive one combination of IPSec protection (for example, authentication only) and other traffic to receive a different combination of IPSec protection (for example, both authentication and encryption), you need to create two different crypto access lists to define the two different types of traffic. These different access lists are then used in different crypto map entries which specify different IPSec policies.

QUESTION 430
Select the AAA protocols that offer multiprotocol support.

A. TACACS+
B. RADIUS
C. AAA
D. IPSec
E. PPP

Answer: A

Explanation: TACACS+ offers multiprotocol support. RADIUS does not support the following protocols:

-AppleTalk Remote Access (ARA) protocol
-NetBIOS Frame Protocol Control protocol
-Novell Asynchronous Services Interface (NASI)
-X.25 PAD connection

QUESTION 431
What is the new access-list enhancement available in version 6.2 of the PIX OS ?

A. TurboACL
B. SuperACL
C. Extended ACL
D. Reflexive ACL
E. EACL+

Answer: A

Explanation: Turbo Access Control List-A feature introduced with PIX Firewall version 6.2 that improves the performance of large ACLs.

QUESTION 432
If you have authentication through RADIUS configured and configure the following command, what AV-Pair must you also configure on the RADIUS server for the user to go directly into enable mode?
aaa authorization exec default group radius local

A. shell:priv-lvl=15
B. shell:priv:lvl=7
C. shell:priv:lvl=15
D. shell-priv-lvl=7

Answer: A

Explanation: shell:priv-lvl=15 User will be in enable mode after login (show privilege will be 15).

QUESTION 433
What features are available on PIX firewalls to enhance security? (Select all that apply)

A. Unicast Reverse Path Forwarding
B. Flood Guard
C. Flood Defender
D. Flood Fender
E. FragGuard and Virtual Re-Assembly
F. URL Filtering

Answer: A, B, C, E, F

Explanation: No such thing in the PIX as Flood Fender

QUESTION 434
Which of these are considered IGP's ? (Select all that apply)

A. BGP
B. OSPF
C. RIP
D. EIGRP

Answer: B, C, D

Explanation: BGP is a EGP

QUESTION 435
Concerning about Cisco IOS features, what does PAM do?

A. Non-stick cooking spray.
B. Allows you to customize TCP or UDP port numbers.
C. Provides per port security to prevent DoS attacks.
D. Performs application layer security.
E. Encrypts packets to the session level.

Answer: B

Explanation: PAM enables CBAC-supported applications to be run on nonstandard ports

---

QUESTION 436
An ISDN PRI in North America and Japan has which of the following? (Select all that apply)

A. 1 D
B. 23 B
C. 1 D
D. 30 B
E. 23 D
F. 2 B

Answer: A, B

Explanation: PRI (Primary Rate Interface): A larger aggregate than a BRI, a PRI will consist of 24 channels (T1) or 31 channel's (E1). In either case one channel is reserved for call signaling. For T1s, the D-channel is the 24th channel while the E1s use the 16th channel for signaling.

QUESTION 437
Your router sends a frame-relay frame to your frame-relay provider. The frame-relay switch sees that

the port or DLCI that your frame is going to is congested. The frame-relay switch sends a frame back to your router to notify your router of the congestion ahead (of it) in the network. What is marked in this frame-relay frame sent to your router?

A. FECN
B. BECN
C. DE
D. PVC
E. DLCI

Answer: B

Explanation: backward explicit congestion notification. Bit set by a Frame Relay network in frames traveling in the opposite direction of frames encountering a congested path. DTE receiving frames with the BECN bit set can request that higher-level protocols take flow control action as appropriate. Compare with FE.

QUESTION 438
Which of these commands will control smurf attacks? Choose the best answer.

A. no ip directed-broadcasts
B. ip verify
C. ip rpf verify
D. ip inspect
E. no ip subnet-zero

Answer: A

Explanation: A smurf reflector has more options than the ultimate target of a smurf attack. If a reflector chooses to shut down the attack, appropriate use of no ip directed-broadcast (or equivalent non-IOS commands) will usually suffice

---

QUESTION 439
What if the TACACS+ server is unavailable and you have the following command configured? (Select all that apply)
tacacs-server last-resort succeed

A. The router will wait for the TACACS+ server to come up before allowing the request.
B. The router will request the enable password before the access-request is granted.
C. The router will be allowed to login with no password.
D. This command does not exist.
E. The user will be denied access.

Answer: A, C

Explanation: To cause the network access server to request the privileged password as verification, or to allow successful login without further input from the user, use the tacacs-server last-resort global configuration

command. Use the no form of this command to deny requests when the server does not respond. password-- Allows the user to access the EXEC command mode by entering the password set by the enable command. succeed-- Allows the user to access the EXEC command mode without further question.

QUESTION 440
Which protocol uses the diffusing update algorithm?

A. IGRP
B. EIGRP
C. BGP
D. OSPF
E. RIP
F. IRDP

Answer: B

Explanation: The Diffusing Update Algorithm (DUAL) is the algorithm used to obtain loop-freedom at every instant throughout a route computation. This allows all routers involved in a topology change to synchronize at the same time. Routers that are not affected by topology changes are not involved in the recomputation.

QUESTION 441
What are the default interfaces on a two interface PIX firewall and what are their security levels?

A. outside (0) and inside (100)
B. outside (0) and inside (255)
C. e0 (0) and e1 (100)
D. outside (1000) and inside (0)
E. e0 (0) and e1 (255)

Answer: A

Explanation: The PIX Firewall default configuration supplies nameif commands for the inside and outside interfaces. Use the show nameif command to view these commands. They will appear as:nameif ethernet0 outside security0 nameif ethernet1 inside security100

QUESTION 442
What is the administrative distance of EIGRP?

A. 90
B. 100
C. 120
D. 1
E. 0
F. 110

Answer: A

Explanation: Internal EIGRP 90
IGRP 100
OSPF 110
Intermediate System-to-Intermediate System (IS-IS) 115
Routing Information Protocol (RIP) 120

QUESTION 443
What are the six AAA Accounting types? (Select all that apply)

A. Network
B. Connection
C. EXEC
D. System
E. Command
F. Resource

Answer: A, B, C, D, E, F

Explanation: AAA supports six different accounting types:
Network Accounting
Connection Accounting
EXEC Accounting
System Accounting
Command Accounting
Resource Accounting

QUESTION 444
When applied with the "ip access-group 2000 in" command, on an interface, what traffic does the following access-list block (select the best answer)?
access-list 2000 remark deny ipx any any

A. None
B. Any IP traffic.
C. Invalid access-list.
D. All IPX traffic.

Answer: B

Explanation: 2000-2699 IP extended access list (expanded range)
remark Access list entry comment
R1(config)#access-list 2000 deny ipx any any
^
Invalid input detected at '^' marker.
R1(config)#access-list 2000 deny ip any any
I dont agree with the question/answer here is it is not a supported command. The question has IPX and you cant

insert it in the 2000 range as it is an IP access-list range. I think the question should have been "access-list 2000 remark deny IP any any" If it were to have been about IPX then it would have been a different range (900-999 IPX extended access list) Depending on how it is shown on real test the answer could be B if the X is dropped to be just IP (not IPX)

QUESTION 445
An OSPF router that connects two areas is known as the what?

A. ABR
B. ASBR
C. NSSA
D. stub
E. ABRS
F. ARB

Answer: A

Explanation: area border router. Router located on the border of one or more OSPF areas that connects those areas to the backbone network. ABRs are considered members of both the OSPF backbone and the attached areas. They therefore maintain routing tables describing both the backbone topology and the topology of the other areas

---

QUESTION 446
ISDN routers in the United States provide which interface?

A. U
B. R
C. S
D. T
E. NT2

Answer: A

Explanation:

QUESTION 447
What does split horizon do?

A. Keeps the router from sending routes out the same interface they came in.
B. Sends a "route delete" back down the same interface that the route came in.
C. Ignores routing updates.
D. Waits for the next update to come in before declaring the route unreachable.

Answer: A

Explanation: "Split horizon" is a scheme for avoiding problems caused by including routes in updates sent to

the gateway from which they were learned. The "simple split horizon" scheme omits routes learned from one neighbor in updates sent to that neighbor. "Split horizon with poisoned reverse" includes such routes in updates, but sets their metrics to infinity.

QUESTION 448
What port number is HTTP over SSL?

A. 443
B. 80
C. 993
D. 3269

Answer: A

Explanation: If a web browser is not explicitly configured for a proxy, then the browser will initiate an HTTPover-
SSL connection itself, and because this is on TCP port 443, it will not be intercepted by a Content Engine.

QUESTION 449
What port number does LDAP use?

A. 389
B. 3389
C. 398
D. 1812
E. 53
F. 79

Answer: A

Explanation: LDAP port 389

QUESTION 450
BGP runs over what protocol & port? (Select all that apply)

A. TCP
B. UDP
C. PVC
D. port 178
E. port 179
F. port 53

Answer: A, E

Explanation: Since BGP uses unicast TCP packets on port 179 to communicate with its peers, we can

configure a PIX 1 and PIX 2 to allow unicast traffic on TCP port 179 between Routers 11 and 12 and Routers 21 and 22.

QUESTION 451
What is the Kerberos KDC command to add new users to the KDC database?

A. ank
B. ark
C. ack
D. add new key
E. kerberos add key
F. ip kerberos ank

Answer: A

Explanation: Use the ank (add new key) command to add a user to the KDC. This command prompts for a password, which the user must enter to authenticate to the router. ank username@REALM Use the ank command to add a privileged instance of a user. ank username/instance@REALM

QUESTION 452
Your router will receive two routes to the same destination. Which route will it place in your routing table, the RIP route or the EIGRP route?

A. RIP
B. EIGRP
C. Both
D. Neither

Answer: B

Explanation: Lower Adminstrative Distance for Eigrp
Internal EIGRP 90
Routing Information Protocol (RIP) 120

QUESTION 453
What would you do to prevent your routing tables being poisoned by rogue routing updates from another network?

A. Use routing protocol authentication.
B. Use ssh.
C. Encrypt your data.
D. AAA

Answer: A

Explanation: All routing protocols should be configured with the corresponding authentication. This prevents attackers from spoofing a peer router and introducing bogus routing information.

QUESTION 454
Exhibit:
r1#sh line

Tty	Typ	Tx/Rx	A	Modem	Roty	AccO	AccI	Uses	Noise	Overruns	Int
* 0	CTY		-	-	-	-	-	8	0	0/0	-
65	AUX	9600/9600	-	-	-	-	-	0	0	0/0	-
66	VTY		-	-	-	-	-	5	0	0/0	-
67	VTY		-	-	-	-	-	0	0	0/0	-
68	VTY		-	-	-	-	-	0	0	0/0	-
69	VTY		-	-	-	-	-	0	0	0/0	-
70	VTY		-	-	-	-	-	0	0	0/0	-

Line (s) nor in async mode -or with no hardware support:
1-64
r1#
You want to restrict access to vty's such that only IP 1.1.1.1 can connect to them. Look at theattached exhibit. What configuration do you apply to do this?

A. access-list 1 permit 1.1.1.1
line vty 0 4
access-class 1 in
B. You cannot do this.
C. access-list 1 permit 1.1.1.1 0.0.0.0
line vty 66 70
access-class 1 in
D. access-list 1 permit 1.1.1.1 255.255.255.255
line vty 0 4
access-class 1 in

Answer: A

Explanation: Look at the exhibit and notice that the vty lines start at 66 and go through

---

QUESTION 455
Due to Perfect Forward Secrecy (PFS), if one key is compromised so are subsequent as each key is derived from the previous. (True or False)

A. False
B. True

Answer: A

Explanation: During negotiation, this command causes IPSec to request PFS when requesting new security associations for the crypto map entry. PFS adds another level of security because if one key is ever cracked by

an attacker then only the data sent with that key will be compromised. Without PFS, data sent with other keys could also be compromised. With PFS, every time a new security association is negotiated, a new Diffie-Hellman exchange occurs. This exchange requires additional processing time

---

QUESTION 456
Which routing protocols support MD5 authentication? (Select all that apply)

A. BGP
B. OSPF
C. RIPV2
D. EIGRP
E. IGRP
F. IS-IS

Answer: A, B, C, D

Explanation: VERY TRICKY

QUESTION 457
IT IS SUPPORTED MD5 authentication works similarly to plain text authentication, except that the key is never sent over the wire. Instead, the router uses the MD5 algorithm to produce a "message digest" of the key (also called a "hash"). The message digest is then sent instead of the key itself. This ensures that nobody can eavesdrop on the line and learn keys during transmission. These protocols use MD5 authentication: OSPF, RIP version 2, BGP, IP Enhanced IGRP CISCO IOS RELEASE 12.2 T---The IS-IS HMAC-MD5 authentication feature adds an HMAC-MD5 digest to each Intermediate System-to-Intermediate System (IS-IS) protocol data unit (PDU). The digest allows authentication at the IS-IS routing protocol level, which prevents unauthorized routing message from being injected into the network routing domain. IS-IS clear text (plain text) authentication is enhanced so that passwords are encrypted when the software configuration is displayed and passwords are easier to manage and change.

QUESTION 458
Which security server feature will allow you to "customize TCP or UDP port numbers for network services"?

A. PAM
B. Asec
C. Bbal
D. auth-proxy
E. ACL
F. CBAC

Answer: A

Explanation: PAM enables CBAC-supported applications to be run on nonstandard ports

---

QUESTION 459
Routers, instead of bridges, are used to limit network traffic by dropping what?

A. broadcasts
B. BPDU
C. Novell services
D. chatter

Answer: A

Explanation: Routers are layer 3 and Bridges are layer 2. Layer 3 defines broadcast domains.

QUESTION 460
Your OSPF adjacency won't come up. You run the "show ip ospf neighbor" command and are returned to the command prompt. What are some of the possible causes? (Select all that apply)

A. The IGRP process is not properly configured.
B. Access-list preventing hellos.
C. Ospf is configured as passive.
D. Different OSPF area types (like stub or NSSA).
E. You are trying to form an adjacency over a secondary network.
F. ICMP is being denied.

Answer: B, C, D, E

Explanation: IGRP has nothing to do with OSPF interfaces. Access-lists cannot block the mulitcast addresses that are needed OSPF passive interface with listend but not actively be a part of Difference area types can cause adjacencies not to form ICMP has nothing to do with it as well

---

QUESTION 461
What is the administrative distance of RIP Version 2?

A. 90
B. 120
C. 100
D. 20
E. 170
F. 200

Answer: B

Explanation: Internal EIGRP 90
IGRP 100
OSPF 110
Intermediate System-to-Intermediate System (IS-IS) 115 Routing Information Protocol (RIP) 120

QUESTION 462
What port number does RADIUS use?

A. 1812
B. 1645
C. 1813
D. 110
E. 25
F. 1821

Answer: A

Explanation: Default Setting of RADIUS server on UDP authentication port 1812. radius-server host command The default port for accounting requests is 1646. The default port for authentication requests is 1645 [UG_ACCT], port Proxy accepts accounting messages from the universal gateway at this port. 1813 Post Office Protocol (POP) 3 (port 110) port 25 (SMTP)

QUESTION 463
The Cisco Secure IDS provides protection for which of the following? (Select all that apply)

A. Unauthorized network access
B. Worms
C. E-business application attacks
D. Virus signatures
E. Spam
F. Bandwidth overutilization

Answer: A, B, C

Explanation:

QUESTION 464
What ports does TACACS+ use?

A. 49
B. 1812
C. 490
D. 940
E. 53
F. 149

Answer: A

Explanation: The TACACS+ (TCP port 49, not XTACACS UDP port 49) DNS (53)

QUESTION 465
What is the command that was run, resulting in the output in the attached exhibit?

A. crypto key generate rsa usage-keys
B. crypto key generate rsa
C. show crypto key mypubkey rsa
D. crypto isakmp identity address
E. show key generate rsa

Answer: C

Explanation: To check VeriSign CA enrollment, study the commands below. These commands show the public keys you are using for RSA encryption and signatures.
dt1-45a#show crypto key mypubkey rsa
% Key pair was generated at: 11:31:59 PDT Apr 9 1998
Key name: dt1-45a.cisco.com
Usage: Signature Key
Key Data:
305C300D 06092A86 4886F70D 01010105 00034B00 30480241 00C11854
39A9C75C
4E34C987 B4D7F36C A058D697 13172767 192166E1 661483DD 0FDB907B
F9C10B7A
CB5A034F A41DF385 23BEB6A7 C14344BE E6915A12 1C86374F 83020301 0001
% Key pair was generated at: 11:32:02 PDT Apr 9 1998
Key name: dt1-45a.cisco.com
Usage: Encryption Key
Key Data:
305C300D 06092A86 4886F70D 01010105 00034B00 30480241 00DCF5AC
360DD5A6
C69704CF 47B2362D 65123BD4 424B6FF6 AD10C33E 89983D08 16F1EA58
3700BCF9
1EF17E71 5931A9FC 18D60D9A E0852DDD 3F25369C F09DFB75 05020301 0001

QUESTION 466
What is the PIX features that eliminates the need for a mail relay (or bastion host) outside the firewall?

A. Mail Guard
B. Right Guard
C. Guard Mail
D. SMTP Guard
E. Flood Guard
F. Frag Guard

Answer: A

Explanation: The Mail Guard feature provides safe access for Simple Mail Transfer Protocol (SMTP)

connections from the outside to an inside messaging server. This feature allows a single mail server to be deployed within the internal network without it being exposed to known security problems with some SMTP server implementations. Avoids the need for an external mail relay (or bastion host) system. Mail Guard enforces a safe minimal set of SMTP commands to avoid an SMTP server system from being compromised. This feature also logs all SMTP connections.

QUESTION 467
Configuration:
aaa new-model
aaa authentication login default local
enable password cisco
username backup privilege 7 password 0 backup
username root privilege 15 password 0 router
privilege exec level 7 ping
What can the "backup" user do when he/she logs into the router with the attached configuration? (Select all that apply)

A. ping
B. sh run
C. wr t
D. sh ver
E. sh ip int brie

Answer: A, D, E

Explanation: Not sure about this answer as "privilege exec level 7 ping" is the only one listed here. Be sure to look for more exec level 7 commands.

QUESTION 468
What type of access-list is used to catch new TCP or UDP sessions, initiating from your inside network to your outside network, then dynamically create filters to allow those back in?

A. access-lists with the "established" keyword
B. reflexive access-lists
C. lock-any-key
D. dynamic access-lists

Answer: B

Explanation: Reflexive access lists are similar in many ways to other access lists. Reflexive access lists contain condition statements (entries) that define criteria for permitting IP packets. These entries are evaluated in order, and when a match occurs, no more entries are evaluated.However, reflexive access lists have significant differences from other types of access lists. Reflexive access lists contain only temporary entries; these entries are automatically created when a new IP session begins (for example, with an outbound packet), and the entries are removed when the session ends. Reflexive access lists are not themselves applied directly to an interface,

but are "nested" within an extended named IP access list that is applied to the interface. (For more information about this, see the section "Reflexive Access Lists Configuration Task List" later in this chapter

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QUESTION 469
What is "infinity" in RIP V1 ?

A. 16
B. 255
C. infinity = infinity, forever
D. 12
E. 15
F. 65536

Answer: A

Explanation: Neighbor updates of the routes with a metric of 16 (infinity) mean the route is unreachable, and those routes are eventually removed from the routing table.

QUESTION 470
RADIUS encrypts what part of the packet?

A. username
B. password
C. entire packet
D. none

Answer: B

Explanation: RADIUS encrypts only the password in the access-request packet, from the client to the server. The remainder of the packet is unencrypted. Other information, such as username, authorized services, and accounting, could be captured by a third party.

QUESTION 471
How many privilege levels are available to be assigned?

A. 16
B. 15
C. 7
D. 255
E. 16384
F. 64

Answer: A

Explanation: Below shows that 0 - 15 (=16 privilege levels) To understand this example, it is necessary to understand privilege levels. By default, there are three command levels on the router. privilege level 0 -

includes the disable, enable, exit, help, and logout commands privilege level 1 - normal level on Telnet; includes all user-level commands at the router> prompt privilege level 15 - includes all enable-level commands at the router# prompt

---

QUESTION 472
You configure the OSPF routing process and networks that it will run on. You have non-broadcast frame-relay interfaces. What important OSPF command must you use to get the OSPF up?

A. neighbor
B. ip ospf network broadcast
C. ip ospf network point-to-multipoint
D. area X stub
E. nssa
F. network

Answer: A

Explanation: The reason that NEIGHBOR is correct is that the question as you to configure OSPF routing process and networks [you are in the router(config-router)#]
There are two ways to simulate a broadcast model on an NBMA network: define the network type as broadcast with the ip ospf network broadcast interface sub-command or configure the neighbor statements using the router ospf command.

QUESTION 473
What does the following command do?
aaa authentication ppp MIS-access group tacacs+ none

A. Tells the router to not authenticate if the user has already been authenticated via tacacs+.
B. Tells the router to use RADIUS authentication for PPP if the local authentication fails.
C. Tells the router to use local authentication for PPP.
D. Tells the router to not authenticate if the user has already been authenticated via tacacs+ and deny access.

Answer: A

QUESTION 474
What command enables AAA?

A. aaa new-model
B. ip aaa enable
C. enable aaa
D. it is enabled by default

Answer: A

Explanation: To enable the AAA access control model, use the aaa new-model global configuration command.

QUESTION 475
How do reflexive access-lists determine when a UDP connection has ended? (Select all that apply)

A. When no packets of that session have passed after a timeout period, the session is considered as ended and, then, terminated.
B. When the configured timeout has ended.
C. 5 seconds after two FIN bits have passed.
D. When the RST bit has passed.

Answer: A, B

Explanation: Becouse it is mulitple choice these are the correct answers. Becouse FIN and RST are TCP Temporary reflexive access list entries are removed at the end of the session. For TCP sessions, the entry is removed 5 seconds after two set FIN bits are detected, or immediately after matching a TCP packet with the RST bit set. (Two set FIN bits in a session indicate that the session is about to end; the 5-second window allows the session to close gracefully. A set RST bit indicates an abrupt session close.) Or, the temporary entry is removed after no packets of the session have been detected for a configurable length of time (the timeout period). For UDP and other protocols, the end of the session is determined differently than for TCP. Because other protocols are considered to be connectionless (sessionless) services, there is no session tracking information embedded in packets. Therefore, the end of a session is considered to be when no packets of the session have been detected for a configurable length of time (the timeout period).

QUESTION 476
The locally-significant value that identifies the virtual connection between the frame-relay switch and the frame-relay router is called what?

A. DLCI
B. PVC
C. FECN
D. BECN
E. DE
F. DTE

Answer: A

Explanation: data-link connection identifier. Value that specifies a PVC or an SVC in a Frame Relay network. In the basic Frame Relay specification, DLCIs are locally significant (connected devices might use different values to specify the same connection). In the LMI extended specification, DLCIs are globally significant (DLCIs specify individual end devices).

QUESTION 477
Which of these should be addressed to have a well designed security policy?

A. Know your enemy.
B. Identify assumptions.

C. Control secret.
D. Know your weaknesses.
E. Understand your environment.
F. All of these.

Answer: F

Explanation:

QUESTION 478
Configuration:
aaa new-model
aaa authentication login default radius local
aaa authorization exec default radius
enable password cisco
radius-server 1.1.1.1
radius-server key password
username root privilege 15 password 0 router
line con 0
login authentication default
Look at the attached configuration. If the RADIUS server is unavailable, what will happen when the root user tries to login?

A. He will be authenticated locally.
B. Login will succeed through RADIUS.
C. Login will fail.
D. Router will crash.

Answer: A

Explanation: If there is no response from RADIUS server, according to the command , the router will search for its local database, and because the command 'username root xxxx' is there, root user will be authenticated successfully.
So, the answer is A.

QUESTION 479
In STP, which switch is the root?

A. With the lowest priority.
B. The largest BPDU.
C. The ASBR.
D. The ABR.
E. The DR switch.

Answer: A

Explanation: Note: Even if the administrator sets the root bridge priority to zero in an effort to secure the root bridge position, there is still no guarantee, as there might be a bridge with priority zero and a lower bridge ID.

QUESTION 480
What is the primary features used to protect your network from SYN-Flood attacks?

A. tcp intercept
B. reflexive access-lists
C. dynamic access-lists
D. ip verify

Answer: A

Explanation: The TCP intercept feature implements software to protect TCP servers from TCP SYN-flooding attacks, which are a type of denial-of-service attack. SYN flood attacks are usually noticed because the target host (frequently an HTTP or SMTP server) becomes extremely slow, crashes, or hangs. It's also possible for the traffic returned from the target host to cause trouble on routers; because this return traffic goes to the randomized source addresses of the original packets, it lacks the locality properties of "real" IP traffic, and may overflow route caches. On Cisco routers, this problem often manifests itself in the router running out of memory.

QUESTION 481
What product allows network administrators to apply per-user security policies?

A. auth proxy
B. ip verify
C. lock-and-key
D. ip rpf
E. ios firewall
F. username/password

Answer: A

Explanation: Authentication proxy (auth-proxy), available in Cisco IOS(r) Software Firewall version 12.0.5.T and later, is used to authenticate inbound or outbound users, or both. These users would normally be blocked by an access list, but with auth-proxy the users bring up a browser to go through the firewall and authenticate on a Terminal Access Controller Access Control System Plus (TACACS+) or RADIUS server.

QUESTION 482
Which are recommended steps to developing effective security policies? (Select all that apply)

A. Identify your network assets to protect.
B. Determine points of risk.
C. Remember physical security.
D. Make assumptions.
E. Keep policy to network security only.

Answer: A, B, C

Explanation: In Security policy you dont make assumptions. Security policy cover a huge reange of topics from accpetible use to applications.

QUESTION 483
Command output:
router1#sh ip inspect config
Session audit trail is disabled
one-minute (sampling period) thresholds are [400:500]connections
max-incomplete sessions thresholds are [400:500]
max-incomplete tcp connections per host is 50.
Block-time 0 minute.
tcp synwait-time is 30 sec -- tcp finwait-time is 5 sec
tcp idle-time is 3600 sec -- udp idle-time is 30 sec
dns-timeout is 5 sec
Inspection Rule Configuration
Inspection name mysite
ftp timeout 3600
smtp timeout 3600
tcp timeout 3600
Look at the attached command output. What protocols is CBAC currently configured to inspect? (Select all that apply)

A. ftp
B. vdolive
C. smtp
D. udp
E. sqlnet
F. all protocols

Answer: A, C

Explanation: ftp timeout 3600, smtp timeout 3600 tell what CBAC is inspecting.

QUESTION 484
What are the two "modes" of tcp intercept? (Select all that apply)

A. watch
B. intercept
C. aggressive
D. open
E. connect
F. monitor

Answer: A, B

Explanation: The TCP intercept can operate in either active intercept mode or passive watch mode. The default is intercept mode.

QUESTION 485
What IP address class is the address 223.255.253.1 located in?

A. A
B. B
C. C
D. D
E. E
F. F

Answer: C

Explanation:

QUESTION 486
To encrypt passwords stored on your Cisco router, what command must you run?

A. service password-encryption
B. service encryption-password
C. password-encryption
D. encrypt service-passwords
E. password hash
F. no service password-cleartext

Answer: A

Explanation: To encrypt passwords, use the service password-encryption global configuration command. Use the no form of this command to disable this service.

QUESTION 487
What is the skinny protocol?

A. SCCP
B. SSCP
C. SIP
D. H.323
E. RTSP

Answer: A

Explanation: SKINNY-Skinny Client Control Protocol.

QUESTION 488
What command, or commands, will disable connections to the echo and discard ports?

A. no service tcp-small-servers
B. no ip tcp-small-servers
C. access-list 101 deny ip any any eq echo
access-list 101 deny ip any any eq discard
int lo0
access-group 101 in
D. no service tcp-small-services

Answer: A

Explanation: To access minor TCP/IP services available from hosts on the network, use the service tcp-smallservers
global configuration command. Use the no form of the command to disable these services.

QUESTION 489
What could connect two VLANs together? (Select all that apply)

A. 802.1q
B. ISL
C. trunking
D. VTP
E. DLS
F. RSRB

Answer: A, B, C

Explanation:

QUESTION 490
Which of the following commands would be used in configuring pptp access through a router from a PC? (Select all that apply)

A. vpdn enable
B. protocol pptp
C. no ip http server
D. no ip directed-broadcasts
E. pptp enable
F. protocol vpdn

Answer: A, B

Explanation: To enable virtual private dialup networking on the router and inform the router to look for tunnel

definitions in a local database and on a remote authorization server (home gateway), if one is present, use the vpdn enable global configuration command.

QUESTION 491
What two commands, used together, on a PIX would configure inbound connections. (Choose two)

A. static
B. inbound
C. nat
D. global
E. passwd

Answer: A, B

Explanation: The Answer in this question is wrong. They stated that it is static and inbound. Inbound is not a command in PIX OS 6.2 However, I dont see a conduit command or access-list command.
SO TAKE YOUR BEST GUESS I THINK IT MAY BE STATIC AND NAT
Set password for Telnet access to the PIX Firewall console. (Privileged mode.) Create or delete entries from a pool of global addresses If the external network is connected to the Internet, each global IP address must be registered with the Network Information Center (NIC). Associate a network with a pool of global IP addresses The nat command lets you enable or disable address translation for one or more internal addresses. Address translation means that when a host starts an outbound connection, the IP addresses in the internal network are translated into global addresses. Network Address Translation (NAT) allows your network to have any IP addressing scheme and the PIX Firewall protects these addresses from visibility on the external network.When an inbound packet arrives at an external interface such as the outside interface, it first passes the PIX Firewall Adaptive Security criteria. If the packet passes the security tests, the PIX Firewall removes the destination IP address, and the internal IP address is inserted in its place. The packet is forwarded to the protected interface. In the CSPFA course book it does state that DYNAMIC translations use global and Nat but it is used for INSIDE to OUTSIDE "Dynamic Translations are used for local hosts and their outbound connections"

QUESTION 492
How can you tell what hosts are on your local network?

A. The IP address of your host.
B. The subnet mask of your host.
C. The remote router's IP address.
D. Your hub's IP address.

Answer: B

Explanation:

QUESTION 493
Which of these are a path vector routing protocol?

A. BGP

B. OSPF
C. RIP
D. EIGRP
E. RIPV2
F. IGRP

Answer: A

Explanation: BGP is classified as a path vector routing protocol by RFC 1322 The Border Gateway Protocol (BGP) (see [BGP91]) and the Inter Domain Routing Protocol (IDRP) (see [IDRP91]) are examples of path vector (PV) protocols [Footnote: BGP is an inter-autonomous system routing protocol for TCP/IP internets. IDRP is an OSI inter-domain routing protocol that is being progressed toward standardization within ISO.

QUESTION 494
Which are valid AAA authentication login methods? (Select all that apply)

A. enable
B. krb5
C. krb5-telnet
D. line
E. local-case
F. none

Answer: A, B, C, D, E, F

Explanation:

QUESTION 495
By default, what is a peer router's ISAKMP identity?

A. hostname
B. IP Address
C. pubkey
D. keystring
E. MAC Address

Answer: B

Explanation: To define the identity the router uses when participating in the IKE protocol, use the crypto isakmp identity global configuration command. Set an ISAKMP identity whenever you specify pre-shared keys. Addresss ets the ISAKMP identity to the IP address of the interface that is used to communicate to the remote peer during IKE negotiations. Hostname sets the ISAKMP identity to the host name concatenated with the domain name (for example, myhost.domain.com).

QUESTION 496
Type the command that you would enter on a vty line to enable lock-and-key

Answer: access-enable

Explanation: To enable the router to create a temporary access list entry in a dynamic access list, use the access-enable EXEC command. Use the autocommand command with the access-enable command to cause the access-enable command to execute when a user opens a Telnet session into the router.

QUESTION 497
Which of these best describes PDM?

A. Lets you manage your PIX firewalls and their configurations.
B. Lets you manage your IPSec configuration.
C. Provides a certification authority.
D. Delivers geographical load balancing based on network topology and traffic patterns.
E. Enable service providers to lay the foundation for delivering differentiated New World services.
F. Cisco router configurator.

Answer: A

Explanation: PIX device manager

QUESTION 498
Your OSPF neighbors are not forming adjacencies. What might be the problem? (Select all that apply)

A. Network type mismatch.
B. Hello mismatch.
C. Dead mismatch.
D. ABR ASBR mismatch.

Answer: A, B, C

QUESTION 599
You do an "enable 0" and press enter. What commands can you now perform? (Select all that apply)

A. disable
B. enable
C. help
D. sh ver
E. logout
F. None, as you are at level ZERO.

Answer: A, B, C, E

Explanation: privilege level 0 - includes the disable, enable, exit, help, and logout commands
privilege level 1 - normal level on Telnet; includes all user-level commands at the router> prompt
privilege level 15 - includes all enable-level commands at the router# prompt

QUESTION 500
Your RADIUS server is at IP address 172.22.53.201and the authentication key is "cisco". AAA has not yet been configured on your router. What is the minimum number of commands you can type to tell your router about your RADIUS server? (Select all that apply)

A. aaa new-model
radius-server host 172.22.53.201 auth-port 1645 acct-port 1646 key cisco
B. radius-server host 172.22.53.201 key cisco
C. aaa new-model
D. radius-server host 172.22.53.201 auth-port 1645 acct-port 1646 key cisco

Answer: B, C

Explanation:

QUESTION 501
Which of the following will help to prevent network data interception? (Select all that apply)

A. Data Confidentiality
B. Data Integrity
C. Data Origin Authentication
D. Anti-Replay
E. Accounting

Answer: A, B, C, D

Explanation: Accounting wont prevent data interception

QUESTION 502
Which of the following commands configured CAR?

A. ip car
B. rate-limit
C. ip rate-limit
D. car rate-limit
E. ip traffic-limit car

Answer: B

Explanation: To configure committed access rate (CAR) and distributed CAR (DCAR) policies, use the ratelimit
interface configuration command

QUESTION 503
To what address are OSPF hellos sent?

A. 224.0.0.5
B. 224.0.0.6
C. 192.168.0.5
D. 10.1.1.1
E. 225.1.1.5
F. 224.0.0.2

Answer: A

Explanation: Open Shortest Path First (OSPF) uses the IP addresses 224.0.0.5 and 224.0.0.6 to exchange linkstate
information

QUESTION 504
In RFC 2138 (RADIUS), vendor specific attributes (VSA) are specified. Specifically, this is called VSA 26 (attribute 26). These allow vendors to support their own extended options. Cisco's vendor ID is 9. Which of the following commands tell the Cisco IOS to use and understand VSA's ? (Select all that apply)

A. radius-server vsa send
B. radius-server vsa send authentication
C. radius-server vsa send accounting
D. ip radius-server vsa send
E. None, this is enabled by default.
F. All of the above.

Answer: A, B, C

Explanation: To configure the network access server to recognize and use vendor-specific attributes, use the radius-server vsa send global configuration command. accounting (Optional) Limits the set of recognized vendor-specific attributes to only accounting attributes. authentication (Optional) Limits the set of recognized vendor-specific attributes to only authentication attributes.

QUESTION 505
At what point between two hosts, connected via the Internet, would a hacker have to be at to perform a "man in the middle" attack?

A. On your network.
B. On the remote network.
C. On your host.
D. On the remote host.
E. At some intermediate network between your host and the remote host.

Answer: E

QUESTION 506
You want to have the denials to your access-list sent to the router's log. What two commands do you need? (Select all that apply)

A. logg buff 4096
B. access-list 101 deny any any log-input
C. logging monitor
D. terminal monitor
E. logging trap
F. aaa accounting

Answer: A, B

Explanation: logging buffered To log messages to an internal buffer, use the logging buffered global configuration command. The no logging buffered command cancels the use of the buffer and writes messages to the console terminal, which is the default. States what traffic is going to the buffer

---

QUESTION 507
In dialup technologies, interesting traffic will do which of the following? (Select all that apply)

A. Reset the idle timer to zero.
B. Trigger a call.
C. Increase the idle timer.
D. Disconnect a call.

Answer: A, B

Explanation: This Answer is correct. Dialup traffic is interesting it brings up the line and resets the idle timer.

QUESTION 508
What is a AAA POD?

A. Packet of Disconnect
B. Point of Disconnection
C. Place of Destruction
D. Packet of Determination

Answer: A

Explanation: To enable inbound user sessions to be disconnected when specific session attributes are presented, use the aaa pod server command in global configuration mode.

QUESTION 509
Will CBAC's tcp inspection enable support for FTP?

A. Yes, CBAC's tcp inspect support FTP and most other applications.

B. No, tcp inspect does not support FTP as FTP uses multiple channels to support data transmission between client and host.
C. No, tcp inspect does not support FTP as FTP uses IPSec and IPSec is not supported via the Cisco

A. IOS firewall.
D. Yes, this is enabled by default.

Answer: A

Explanation: CBAC also has the ability to handle multiple channels and dynamic ports that are dynamically created when using multimedia applications and other protocols such as FTP, RPC, and SQLNet."
Cisco Certified Internetwork Expert Security Exam v1.7 by John J. Kaberna pg 415

QUESTION 510
What is RADIUS? (Select all that apply)

A. Remote Authentication Dial-In User Services.
B. "A distributed client/server system that secures networks against unauthorized access".
C. A secret-key network authentication protocol.
D. A modular security application that provides centralized validation of users attempting to gain access to a router or network access server.

Answer: A, B

Explanation: Remote Authentication Dial-In User Services and A distributed client/server system that secures networks against unauthorized access are correct answers

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QUESTION 511
RADIUS uses what as its transport protocol?

A. UDP
B. TCP
C. ARP
D. IPSec
E. IPX
F. SSH

Answer: A

QUESTION 512
If you had to choose one command in global-config mode to disable CDP on interface e0/0, which would it be? Choose the best answer.

A. no cdp run

B. no cdp enable
C. no cdp
D. no ip cdp

Answer: A

Explanation: VERY TRICKY! Notice it says global config (router-config)# not (router-config-if)# normally you would use the cdp enable/no cdp enable to control interface cdp but the question calls for a global command. The normal global command is cdp runcdp run --To enable Cisco Discovery Protocol (CDP), use the cdp run global configuration command. To disable CDP, use the no form of this command. cdp enable --To enable Cisco Discovery Protocol (CDP) on an interface, use the cdp enable interface configuration command. To disable CDP on an interface, use the no form of this command.

QUESTION 513
If you run the "show ip ospf neighbor" command, which of the following are a possible output?

A. init
B. exstart/exchange
C. 2-way
D. loading
E. nothing at all
F. all of the above

Answer: F

Explanation:

QUESTION 514
The Cisco IOS supports which versions of SSH?

A. 1
B. 2
C. 3
D. 4

Answer: A

Explanation: Secure Shell (SSH) is a protocol that provides a secure, remote connection to a router. There are currently two versions of SSH available, SSH Version 1 and SSH Version 2. Only SSH Version 1 is implemented in Cisco IOS software.

QUESTION 515
What is the STP cost for a 10Mb ethernet link?

A. 1
B. 10

C. 100
D. 1000
E. 64
F. 250

Answer: C

Explanation:

QUESTION 516
Which of the following are valid av-pairs on a RADIUS server?

A. rte-fltr-out#0="router igrp 60"
B. user = georgia {
login = cleartext lab
service = ppp protocol = ip {
addr-pool=bbb
}
}
C. cisco-avpair = "ip:addr-pool=bbb"
D. route#1="3.0.0.0 255.0.0.0 1.2.3.4"

Answer: C

QUESTION 517
What bits must a class D IP address always begin with?

A. 10
B. 100
C. 110
D. 1110
E. 1111
F. 101

Answer: D

Explanation:
CLass D must always start with 1110 C 110 B 100 A 10

Binary Notation	**Decimal Notation**
xxxx xxxx. 0000 0000.0000 0000.0000 0000/10	------> X.0.0.0/10
xxxx xxxx. 0100 0000.0000 0000.0000 0000/10	------> X.64.0.0/10
xxxx xxxx. 1000 0000.0000 0000.0000 0000/10	------> X.128.0.0/10
xxxx xxxx. 1100 0000.0000 0000.0000 0000/10	------> X.192.0.0/10

QUESTION 518
OSPF area 12 is not connected to area 0. What do you need to do? (Select all that apply)

A. Nothing, there is no problem with doing this.
B. Configure a virtual link.
C. All areas must be connected to the backbone.
D. Use the area X virtual-link command.
E. Use the default-information originate command.

Answer: B, C, D

Explanation: All areas in an OSPF autonomous system must be physically connected to the backbone area (area 0). In some cases where this is not possible, you can use a virtual link to connect to the backbone through a non-backbone area. As mentioned above, you can also use virtual links to connect two parts of a partitioned backbone through a non-backbone area. The area through which you configure the virtual link, known as a transit area, must have full routing information. The transit area cannot be a stub area. area <area-id> virtuallink <router-id>

QUESTION 519
What is the command to disable IKE?

Answer: no crypto isakmp enable

QUESTION 520
What two commands do you configure, together, on a PIX firewall, to configure outbound NAT translation? (Select all that apply)

A. nat
B. global
C. ip route
D. conduit
E. route inside

Answer: A, B

Explanation: In the CSPFA course book it does state that DYNAMIC translations use global and Nat but it is used for INSIDE to OUTSIDE "Dynamic Translations are used for local hosts and their outbound connections"

QUESTION 521
Which of the following commands would apply a CBAC rule to an interface?

Answer: ip inspect {inspection name} in

QUESTION 522
Cisco recommends configuring a backup authentication method, what is required to configure a backup authentication method?

A. AAA
B. RADIUS
C. TACACS+
D. Local authentication
E. Kerberos

Answer: A

Explanation:

QUESTION 523
If you want no more than 4 useable host IP addresses, what subnet mask would you use? (Select all that apply)

A. /30
B. /32
C. /29
D. 255.255.255.248
E. 255.255.255.240
F. 255.255.255.0

Answer: C, D

Explanation: 29 and 255.255.255.248 are the same thing
IP Mask Notes
192.27.200.0 255.255.255.248 Subnet Address
192.27.200.1 255.255.255.248
192.27.200.2 255.255.255.248
192.27.200.3 255.255.255.248
192.27.200.4 255.255.255.248
192.27.200.5 255.255.255.248
192.27.200.6 255.255.255.248
192.27.200.7 255.255.255.248 Broadcast Address

QUESTION 524
What command would begin the creation of the highest priority IKE policy?

A. crypto isakmp policy 1
B. crypto isakmp policy 10000
C. crypto ike policy 1
D. crypto ike policy 10000

Answer: A

Explanation: The following example shows two policies with policy 20 as the highest priority, policy 30 as the next priority, and the existing default policy as the lowest priority

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QUESTION 525
Exhibit:
interface Serial1/0:0.254 point-to-point
ip address 10.0.100.1 255.255.255.252
no ip proxy-arp
access-group 155 out
no cdp enable
frame-relay class 1544Kfrkeepalive
frame-relay interface-dlci 45
access-list 155 permit ip any 10.254.0.0 0.0.255.255 eq telnet time-range
timelist
time-range timelist
periodic daily 6:00 to 21:00
Based on the attached exhibit, when would telnet traffic to the 10.253.0.0 network function?

A. It would not function, it is denied.
B. It would always function, it is permitted in the access-list 155.
C. From 6am to 9pm each day.
D. The remote router would deny the telnet.

Answer: A

Explanation: This is a tricky question. Look at the config and the thing that jumps out is the time range. The time range is setup correctly but the access-list is not. "access-list 155 permit ip any 10.254.0.0 0.0.255.255 eq telnet time-range" Notice the question asks for 10.253.0.0 network but the access-list only allows 10.254.0.0

QUESTION 526
Which of the following are associated with SNMP V3 ? (Select all that apply)

A. Integrity
B. MD5 authentication
C. Encryption
D. Clear-text
E. Only security based on community strings and access-lists.

Answer: A, B, C

Explanation: Simple Network Management Protocol Version 3 (SNMPv3) is an interoperable standards-based protocol for network management. SNMPv3 provides secure access to devices by a combination of authenticating and encrypting packets over the network. The security features provided in SNMPv3 are:
Message integrity---Ensuring that a packet has not been tampered with in-transit.
Authentication---Determining the message is from a valid source.
Encryption---Scrambling the contents of a packet prevent it from being seen by an unauthorized source.

QUESTION 527
What are the current commands used to apply access-lists on a PIX firewall?

A. access-list & access-group
B. conduit and outbound
C. access-class and access-group
D. map-list and route-map

Answer: A

Explanation: To maximize security when implementing a Cisco Secure PIX Firewall, it is important to understand how packets are passed from and to higher security interfaces from lower security interfaces by using the nat, global, static, and conduit commands, or access-list and access-group commands in PIX software versions 5.0 and later.

QUESTION 528
What layer of the OSI model does ASCII run at?

A. 6
B. 2
C. 3
D. 4
E. 5
F. 7

Answer: A

Explanation: Layer 6: The Presentation Layer The presentation layer ensures that the information that the application layer of one system sends out is readable by the application layer of another system. If necessary, the presentation layer translates between multiple data formats by using a common format. If you want to think of Layer 6 in as few words as possible, think of a common data format.

QUESTION 529
Which of these routing protocols support discontiguous networks? (Select all that apply)

A. OSPF
B. RIP
C. IGRP
D. EIGRP

Answer: A, D

Explanation: RIP and IGRP are classful protocols, thus dont allow discontiguous networks

QUESTION 530
In order, what ports do the following use- IKE, ESP, and AH

A. 500, 50, 51
B. 50, 51, 52
C. 51, 52, 500
D. 5000, 500, 501
E. 105, 150, 151

Answer: A

Explanation:
500 IKE Internet Key Exchange [RFC 2409]
50 ESP Encap Security Payload for IPv6 [RFC2406]
51 AH Authentication Header for IPv6 [RFC2402]

QUESTION 531
Which of the following are reflexive access-lists

A. None of these.
B. access-list 101 permit tcp 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255 established
C. access-list 101 permit tcp 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255 reflect
D. access-list 101 permit tcp 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255 dynamic

Answer: A

Explanation: permit protocol any any reflect name [timeout seconds] Defines the reflexive access list using the reflexive permit entry. Repeat this step for each IP upper-layer protocol; for example, you can define reflexive filtering for TCP sessions and also for UDP sessions. You can use the same name for multiple protocols. EXAMPLE: permit tcp any any reflect tcptraffic Define the reflexive access list tcptraffic. This entry permits all outbound TCP traffic and creates a new access list named tcptraffic. Also, when an outbound TCP packet is the first in a new session, a corresponding temporary entry will be automatically created in the reflexive access list tcptraffic.The "access-list 101 permit tcp 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255 reflect" is not a complete statement. It needs to call a name and none is given

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QUESTION 532
Traffic is flowing from the inside to the outside. You are using an output access-list (outbound access-list) along with NAT. What IP addresses should be referenced in the access-list?

A. Outside (global) addresses
B. Inside (local) addresses
C. Encrypted addresses
D. Private addresses
E. Both inside and outside addresses.
F. This will not work.

Answer: A

QUESTION 533
What are the four possible responses that the NAS could receive from the TACACS+ server? (Select all that apply)

A. ACCEPT
B. REJECT
C. ERROR
D. CONTINUE
E. DENY
F. FAIL

Answer: A, B, C, D

Explanation: The network access server will eventually receive one of the following responses from the TACACS+ daemon:
ACCEPT--The user is authenticated and service may begin. If the network access server is configured to requite authorization, authorization will begin at this time.
REJECT--The user has failed to authenticate. The user may be denied further access, or will be prompted to retry the login sequence depending on the
TACACS+ daemon.
ERROR--An error occurred at some time during authentication. This can be either at the daemon or in the network connection between the daemon and the network access server. If an ERROR response is received, the network access server will typically try to use an alternative method for authenticating the user.
CONTINUE--The user is prompted for additional authentication information.
A FAIL response is significantly different from an ERROR. A FAIL means that the user has not met the criteria contained in the applicable authentication database to be successfully authenticated. Authentication ends with a FAIL response. An ERROR means that the security server has not responded to an authentication query. Because of this, no authentication has been attempted. Only when an ERROR is detected will AAA select the next authentication method defined in the authentication method list.
Access-Request---sent by the client (NAS) requesting access
Access-Reject---sent by the RADIUS server rejecting access
Access-Accept---sent by the RADIUS server allowing access
Access-Challenge---sent by the RADIUS server requesting more information in order to allow access. The NAS, after communicating with the user, responds with another access request.

QUESTION 534
SSH encrypts what, between server and client? (Select all that apply)

A. username/passwords
B. commands
C. Ipsec and IKE
D. IP source and destination addresses

Answer: A, B

Explanation:

QUESTION 535
What does a PIX do with tcp sequence number to minimize the risk of tcp sequence number attacks? (Select all that apply)

A. Randomize them.
B. Make sure they are within an acceptable range.
C. Doesn't use them.
D. Uses the same numbers over and over again.
E. Denies them.

Answer: A, B

Explanation: Always in operation monitoring return packets to ensure they are valid. Actively randomizes TCP sequence numbers to minimize the risk of TCP sequence number attack. The sequences need to be within a valid range of each other to be allowed through the PIX

QUESTION 536
What is an atomic attack signature?

A. Detects simple patterns.
B. Detects compound patterns.
C. Detects complex patterns.
D. Detects distributed attacks.

Answer: A

Explanation: Atomic signatures (seventy-four): detect simple patterns (ie: attempt on a specific host) Compound signatures (twenty-seven): detect complex patterns (ie: attack on multiple hosts, over extended time periods with multiple packets) Info signatures (forty): detect information-gathering activities (ie: port sweep) Attack signatures (sixty-one): detect malicious activity (ie: illegal ftp commands)

QUESTION 537
Switch A has a priority of 8192 while Switch B has a priority of 32768. Which switch will be root & why?

A. Switch A, it has the lowest priority.
B. Switch B, it has the highest priority.
C. Neither, it will be determined by the lowest MAC address.
D. Neither, it will be determined by the lowest cost to the root switch.

Answer: A

Explanation: Note: Even if the administrator sets the root bridge priority to zero in an effort to secure the root bridge position, there is still no guarantee, as there might be a bridge with priority zero and a lower bridge ID.

QUESTION 538
IKE provides which of the following benefits? (Select all that apply)

A. Allow encryption keys to change during IPSec sessions.
B. Anti-replay.
C. Enables you to specify a lifetime for security associations.
D. Enable you to have certification authority (CA) support.
E. Data integrity.
F. Provides data integrity.

Answer: A, B, C, D

Explanation: Specifically, IKE provides these benefits:
Eliminates the need to manually specify all the IPSec security parameters in the crypto maps at both peers.
Allows you to specify a lifetime for the IPSec security association.
Allows encryption keys to change during IPSec sessions.
Allows IPSec to provide anti-replay services.
Permits CA support for a manageable, scalable IPSec implementation.
Allows dynamic authentication of peers

QUESTION 539
According to the Cisco IOS documentation, what four things does CBAC do? (Select all that apply)

A. Traffic filtering.
B. Traffic inspection.
C. Alerts and audit trails.
D. Intrustion detection.
E. None of the above.

Answer: A, B, C, D

Explanation: CBAC intelligently filters TCP and UDP packets CBAC can inspect traffic Real-time alerts and audit trails

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QUESTION 540
How would you see the default IKE policy?

A. show running
B. wr t
C. show crypto isakmp policy
D. show crypto ike policy
E. wr m

Answer: C

Explanation: To view the parameters for each IKE policy, use the show crypto isakmp policy EXEC command.

QUESTION 541
If you are using certificates, what is required? (Select all that apply)

A. Set a hostname and domain
B. Hostname {router hostname}
ip domain-name {domain name}
C. Configure and enable password.
D. Enable DHCP.
E. Crypto ca certificate query

Answer: A, B

QUESTION 542
What is a limitation of Unicast RPF?

A. Cisco express switching (CES) must be enabled.
B. Multiple access-lists must be configured.
C. A CA is required.
D. Symmetrical routing is required.

Answer: D

Explanation: Internal interfaces are likely to have routing asymmetry, meaning multiple routes to the source of a packet. Unicast RPF should be applied only where there is natural or configured symmetry.Hence, it is not recommended that you apply Unicast RPF where there is a chance of asymmetric routing.

QUESTION 543
RIP is at what OSI layer?

A. 1
B. 2
C. 3
D. 4
E. 5
F. 6

Answer: C

Explanation: Routing, error notification, etc., are considered layer management. There is nothing "above" them; they are part of the infrastructure for a given layer. So,all of them are logically layer 3.
The issue of the mechanism they use to transfer information between them is independent of the layer they

manage. In Chuck's table below, EIGRP and OSPF do have transport functions that are part of their own design--which have a TCP-like flavor. For that matter, ISIS runs directly over data link.
--Recently an instructor in a class I was taking said something I found interesting. I hope I can do justice to his words.
---Network layer: IP IP IP
---Transport layer: TCP UDP
---Application layer: BGP RIP EIGRP, OSPF, IGRP

QUESTION 544
If you want to use RADIUS authentication, must you configure AAA?

A. No, AAA is for authentication, authorization, and accounting. It is not required to configure

A. RADIUS.
B. No, AAA is not required to use RADIUS, just use the "ip auth radius" commands.
C. Yes, you must configure AAA to use TACACS+, Kerberos, or RADIUS.

Answer: C

QUESTION 545
How many of the most common attack "signatures" does the Cisco IOS IDS support?

A. 59
B. 256
C. 12
D. 95

Answer: A

Explanation: The Cisco IOS Firewall IDS feature identifies 59 of the most common attacks using "signatures" to detect patterns of misuse in network traffic. The Intrustion-detection signatures included in the Cisco IOS Firewall were chosen from a broad cross-section of Intrustion-detection signatures. The signatures represent severe breaches of security and the most common network attacks and information-gathering scans.

QUESTION 546
What are the two modes of BGP?

A. classless & classful
B. FLSM & VLSM
C. IBGP & EBGP
D. ABGP & BBGP
E. aggressive & quick mode
F. UDP & TCP

Answer: C

QUESTION 547
Why should you use SNMPV3 ? (Select all that apply)

A. It can use MD5 authenticate communications.
B. It can use DES for encrypting information.
C. It sends passwords in clear-text.
D. It supports ip audit.
E. Its security is based on using public and private as the community strings.
F. It is the most secure of the SNMP versions.

Answer: A, B, F

Explanation: Version 3 authNoPriv MD5 or SHA Provides authentication based on the HMAC-MD5 or HMAC-SHA algorithms.Version 3 authPriv MD5 or SHA DES Provides authentication based on the HMACMD5
or HMAC-SHA algorithms. Provides DES 56-bit encryption in addition to authentication based on the CBC-DES (DES-56) standard. SNMPv3 provides for both security models and security levels Simple Network Management Protocol Version 3 (SNMPv3) is an interoperable standards-based protocol for network management. SNMPv3 provides secure access to devices by a combination of authenticating and encrypting packets over the network. The security features provided in SNMPv3 are: Message integrity---Ensuring that a packet has not been tampered with in-transit.Authentication---Determining the message is from a valid source. Encryption---Scrambling the contents of a packet prevent it from being seen by an unauthorized source.

QUESTION 548
Which of these access-lists allow DNS traffic?

A. access-list 101 permit udp 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255 eq 53
B. access-list 101 permit udp 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255 eq 123
C. access-list 101 deny udp 0.0.0.0 255.255.255.255 0.0.0.0 255.255.255.255 eq 2049
D. access-list 101 permit tcp 0.0.0.0 255.255.255.255 B.B.13.2 0.0.0.0 eq 23
E. access-list 101 permit tcp 0.0.0.0 255.255.255.255 B.B.13.100 0.0.0.0 eq 21

Answer: A

Explanation: DNS Port: 53 (TCP, UDP) server.

QUESTION 549
Exhibit:
aaa new-model
aaa authentication login default group radius
aaa authorization exec default group radius
ip http server
ip http authentication aaa
radius-server host 171.68.118.101 auth-port 1645 acct-port 1646
radius-server key cisco
privilege exec level 7 clear line

Look at the attached exhibit. After this configuration is in place, you point your web browser to your router's IP address. What username password combination should you use?

A. The one from your RADIUS server.
B. The one from your TACACS+ server.
C. Your local authentication credentials.
D. There will be no authentication.
E. The configuration is invalid.
F. The enable password.

Answer: A

Explanation: "aaa authentication login default group radius" states that you will login using the creditals in the RADIUS server.

QUESTION 550
How do you change EAP from running in its default mode?

A. ppp eap local
B. ppp eap proxy
C. eap local
D. ppp eap nas
E. no ppp eap local
F. no ppp eap proxy

Answer: A

Explanation: To authenticate locally instead of using the RADIUS back-end server, use the ppp eap local command in interface configuration mode. To reenable proxy mode (which is the default), use the no form of this command By default, Extensible Authentication Protocol (EAP) runs in proxy mode. This means that EAP allows the entire authentication process to be negotiated by the network access server (NAS) to a back-end server that may reside on or be accessed via a RADIUS server. To disable proxy mode (and thus to authenticate locally instead of via RADIUS), use the ppp eap local command.In local mode, the EAP session is authenticated using the MD5 algorithm and obeys the same authentication rules as does Challenge Handshake Authentication Protocol (CHAP).

QUESTION 551
Which of the following security server protocols provides separate facilities for each of the A, A, & A ?

A. RADIUS
B. TACACS+
C. Kerberos
D. ssh
E. IPSec
F. IKE

Answer: B

Explanation:

QUESTION 552
What is the binary equivalent of 172.96.19.133 ?

A. 10101100 01100000 00010011 10000101
B. 10101100 01100000 00010111 10000101
C. 10101100 01100001 00010011 10000101
D. 10101100 01100000 00010011 10000111

Answer: A

Explanation:
128 64 32 16 8 4 2 1 128 64 32 16 8 4 2 1 128 64 32 16 8 4 2 1
128 64 32 16 8 4 2 1
1 0 1 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0
1 0 0 1 1 1 0 0 0 0 1 0 1
172 96
19 133

QUESTION 553
Crypto maps do which of the following? (Select all that apply)

A. Define whether sa's are manual or via IKE.
B. Define the transform set to be used.
C. Define who the remote peer is.
D. Define the local address.
E. Define which IP source addresses, destination addresses, ports, and protocols are to be encrypted.

Answer: A, B, C, D

Explanation: Although there is only one peer declared in this crypto map, you can have multiple peers within a given crypto map The set transform-set command is where we associate the transforms with the
crypto map ipsec-isakmp Indicate that IKE will be used to establish the IPSec security associations for protecting the traffic specified by this crypto map entry. ipsec-manual Indicate that IKE will not be used to establish the IPSec security associations for protecting the traffic specified by this crypto
map entry.set peer Specify an IPSec peer in a crypto map entry.
-- hostname Specify a peer by its hostname. This is the peer's hostname concatenated with its domain name. For example, myhost.example.com.
-- ip-address Specify a peer by its IP address.set transform-set Specify which transform sets can be used with the crypto
map entry.

QUESTION 554
Which of the following does CBAC do?

A. Recognize traffic at the application layer.
B. Provide intelligent filtering for all protocols.
C. Protect against attacks originating from the internal network.
D. Protect against every kind of attack.

Answer: A

Explanation: The reason that "Provide intelligent filtering for all protocols." is wrong is that it states ALL CBAC intelligently filters TCP and UDP packets CBAC can inspect traffic Real-time alerts and audit trails

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QUESTION 555
How many useable hosts can you get from a /30 subnet mask?

A. 2
B. 4
C. 8
D. 30
E. 252
F. 0

Answer: A

Explanation:
IP Mask Notes ...
172.27.0.0 255.255.255.252 Subnet Address
172.27.0.1 255.255.255.252
172.27.0.2 255.255.255.252
172.27.0.3 255.255.255.252 Broadcast Address

QUESTION 556
ISAKMP defines the IKE framework (True or False)

A. True
B. False

Answer: A

Explanation: Identify the policy to create. Each policy is uniquely identified by the priority number you assign. isakmp policy priority

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QUESTION 557
You want to create an access-list to allow only ssh to your RFC1918 network. Which one is correct?

A. access-list 100 permit tcp any host 10.0.0.0 0.255.255.255 eq 22
B. access-list 100 permit tcp any host 10.0.0.0 0.255.255.255 eq 22
access-list 100 permit any any
C. access-list 100 permit tcp any host 100.0.0.0 0.255.255.255 eq 23
D. access-list 100 permit tcp any host 100.0.0.0 0.0.0.255 eq 22

Answer: A

Explanation: SSH port 22 10.0.0.0 network is an RFC 1918 network

---

QUESTION 558
What can you do if storing large certificate revocation lists in your routers NVRAM becomes a problem? (Select all that apply)

A. crypto ca certificate query
B. crypto ca query
C. Turn on query mode so that certificate revocation lists are not stores locally but instead queried from the CA when necessary.
D. crypto key generate rsa

Answer: A, C

Explanation: "Turn on query mode so that certificate revocation lists are not stores locally but instead queried from the CA when necessary" really defines crypto ca certificate query To specify that certificates and Certificate Revocation Lists (CRLs) should not be stored locally but retrieved from the CA when needed, use the crypto ca certificate query global configuration command.

QUESTION 559
On a PIX firewall, which of these rules are part of the ASA, by default? (Select all that apply)

A. All ICMP packets denied.
B. All inbound connections denied.
C. All outbound connections allowed.
D. No packets can traverse the PIX without a connection and state.
E. All packets are allowed in unless specifically denied.

Answer: A, B, C, D

Explanation:

QUESTION 560
Which of these are distance-vector routing protocols and support VLSM? (Select all that apply)

A. RIP
B. IGRP
C. BGP

D. OSPF
E. IS-IS

Answer: A, C

QUESTION 561
What command is this output from?
nameif ethernet0 outside security0
nameif ethernet1 inside security100

A. show nameif
B. show name
C. show interfaces
D. show ip int brief
E. show run

Answer: A

QUESTION 562
In Unix, what is syslogd? And what does it do?

A. The system logging facility daemon - takes log entries and performs the action configured in the /etc/syslog.conf file.
B. The network time protocol daemon - keep track of time synchronization between servers.
C. The synchronization protocol server - syncs files.
D. The system logging facility daemon - purges system log entries from the system log so that it doesn't grow too large.

Answer: A

Explanation: Syslogd (8) is a collecting mechanism for various logging messages generated by the kernel and applications running on UNIX operating systems Prepare the configuration file for local hosts. The configuration file /etc/syslog.conf is as follows:

QUESTION 563
Without a CA, what would you have to configure on each router, whenever a new router was added to the network?

A. Keys between the new router and each of the existing routers.
B. RSA private keys.
C. Access-lists.
D. Security associations.

Answer: A

QUESTION 564
What protocol does TACACS+ use to communicate?

A. TCP
B. UDP
C. IPX
D. TAC
E. RADIUS
F. IPSec

Answer: A

Explanation:

QUESTION 565
What traffic is allowed through the following access-list (select the best answer)?
Access-list 2000 permit ip host 10.1.1.1 host 10.2.2.2
Access-list 2000 deny ip any any
Access-list 2000 permit ip any any log

A. All traffic is allowed through.
B. All traffic from host 10.1.1.1 to host 10.2.2.2 is allowed through.
C. All traffic from host 10.2.2.2 to host 10.1.1.1 is allowed through.
D. No traffic is allowed through.
E. This access-list is invalid as 2000 is the range for IPX access-lists.

Answer: B

Explanation: Access-list 2000 deny ip any any
Access-list 2000 permit ip any any log
THIS IS IN THE WRONG ORDER! YOU DENY BUT THEN YOU ARE PERMITING ALL BUT LOGGING IT source to destination

---

QUESTION 566
What command will show the security levels, configured for interfaces, on a PIX firewall?

A. show nameif
B. show interfaces
C. show ip interface brief
D. show name interfaces
E. show run

Answer: A

Explanation:

QUESTION 567
Which of these are based on the Bellman-Ford algorithm? (Select all that apply)

A. Distance vector routing protocols
B. Link-State routing protocols
C. OSPF
D. RIP
E. IGRP

Answer: A, D, E

Explanation: Distance-vector work off of Bellman-Ford algorithm and RIP and IGRP are Examples of DISTANCE-VECTOR

QUESTION 568
What is the easiest way to clear your router of RSA keys that have been generated?

A. no crypto key zeroize rsa
B. no crypto key generate rsa usage-keys
C. no crypto key generate rsa usage-keys
D. write erase & reload

Answer: A

Explanation: To delete all of your router's RSA keys, use the crypto key zeroize rsa global configuration command

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QUESTION 569
During IKE negotiation, how do two peers compare policies? And what must policies match?
(Select all that apply)

A. Remote compares its local from highest (smallest numbered) to lowest (highest numbered).
B. Remote compares its local from highest numbered to lowest numbered.
C. Policies must match encryption, hash, authentication, Diffie-Hellman values, and lifetime < or equal.
D. Policies must match hash, IPSec key, authentication, lifetime < or equal, and Diffie-Hellman values.
E. Policies must match exactly.

Answer: A, C

Explanation: IKE negotiations must be protected, so each IKE negotiation begins by each peer agreeing on a common (shared) IKE policy. This policy states which security parameters will be used to protect subsequent IKE negotiations. After the two peers agree upon a policy, the security parameters of the policy are identified by a security association established at each peer, and these security associations apply to all subsequent IKE traffic during the negotiation.There are five parameters to define in each IKE policyencryption algorithm 56-bit DES-CBC 168-bit Triple DES hash algorithm SHA-1 (HMAC variant) MD5 (HMAC variant) authentication

method RSA signatures pre-shared keys Diffie-Hellman group identifier 768-bit Diffie-Hellman or 1024-bit Diffie-Hellman security association's lifetime can specify any number of seconds

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QUESTION 570
With a CA, what do you have to do when adding a new router to your existing IPSec network?

A. Enroll the new router with the CA and request a certificate for the router.
B. Make multiple key entries on the routers in the network.
C. Enter the public key of the new router on each of the existing routers.
D. Configure a TA between each router.

Answer: A

QUESTION 571
Which of these use store-and-forward & cut-through?

A. switch
B. bridge
C. router
D. multiplexor
E. BPDU
F. PIX

Answer: A

Explanation: Switch uses store-and-forward and cut-through methods of send a packet through the switch. Remember it has to do with the packet length read before transmitted.

QUESTION 572
With a 10Mb Ethernet link, what is the formula for calculating OSPF cost?

A. 100 Mbps/10 Mbps = 10
B. 100 Mbps/10 Mbps = 1
C. 1000 Mbps/10 Mbps = 100
D. 100 Bbps/10 Mbps / Cost = .10
E. 10
F. 100 Mbps/10 Mbps * delay = 10

Answer: A

Explanation: In general, the path cost is calculated using the following formula: (10^8)
÷ Bandwidth
Asynchronous-Default cost is 10,000
X25-Default cost is 5208
56-kbps serial link-Default cost is 1785
64-kbps serial link-Default cost is 1562

T1 (1.544-Mbps serial link)-Default cost is 64
E1 (2.048-Mbps serial link)-Default cost is 48
4-Mbps Token Ring-Default cost is 25
Ethernet-Default cost is 10
16-Mbps Token Ring-Default cost is 6
FDDI-Default cost is 1
ATM- Default cost is 1

QUESTION 573
Once a user enters their username and password, which are valid responses that a RADIUS server might provide? (Select all that apply)

A. ACCEPT
B. REJECT
C. CHALLENGE
D. CHANGE PASSWORD
E. DENY
F. REDIRECT

Answer: A, B, C, D

Explanation: Access-Request---sent by the client (NAS) requesting access Access-Reject---sent by the RADIUS server rejecting access Access-Accept---sent by the RADIUS server allowing access Access-Challenge---sent by the RADIUS server requesting more information in order to allow access. The NAS, after communicating with the user, responds with another access request.

QUESTION 574
What does CSPM do that PDM does not? (Select all that apply)

A. Supports IOS routers.
B. Runs on Windows 2000.
C. Runs only on a web interface.
D. Part of Ciscoworks.
E. Supports only PIX.

Answer: A, B, D

QUESTION 575
Your BGP router receives two routes. Both of their next hops are reachable, neither has a weight set, route A has a larger local preference but a longer AS path than route B. Which route is the BEST BGP route?

A. Route A, as it has a larger local preference.
B. Route B, as it has a shorter AS path.
C. Neither route.
D. Both routes are best.

Answer: A

Explanation:

QUESTION 576
What command is used to set the TACACS+ server and its encryption key, in the Cisco IOS?

A. tacacs-server host; tacacs-server key
B. ip tacacs-server host; ip tacacs-server key
C. tacacs-server host; tacacs-server password
D. aaa tacacs-server host; aaa tacacs-server key
E. tacacs-server ; tacacs-server key

Answer: A

Explanation: To specify a TACACS+ host, use the tacacs-server host command in global configuration mode. To set the authentication encryption key used for all TACACS+ communications between the access server and the TACACS+ daemon, use the tacacs-server key command in global configuration mode.

QUESTION 577
You want to set an enable password with the best encryption possible. What command do you use?

A. service password-encryption
B. enable password
C. enable secret
D. enable secret-encryption

Answer: C

Explanation: Enable secret is the command to use the encryption. service password-encryption encrypts ALL password NOT JUST THE ENABLE

QUESTION 578
What is the skinny protocol?

A. SCCP
B. SSCP
C. SIP
D. H.323
E. RTSP

Answer: A

Explanation: SKINNY-Skinny Client Control Protocol.

QUESTION 579
Which of the following are valid ranges for IP or extended IP Cisco IOS access-lists? (Select all that apply)

A. 1-99
B. 1300-1399
C. 100-199
D. 2000-2699
E. 200-299
F. 1000-1099

Answer: A, B, C, D

Explanation: ACL Number Type Supported
1-99 IP standard access list
100-199 IP extended access list
200-299 Protocol type-code access list
300-399 DECnet access list
400-499 XNS standard access list
500-599 XNS extended access list
600-699 AppleTalk access list
700-799 48-bit MAC address access list
800-899 IPX standard access list
900-999 IPX extended access list
1000-1099 IPX SAP access list
1100-1199 Extended 48-bit MAC address access list
1200-1299 IPX summary address access list
1300-1999 IP standard access list (expanded range)
2000-2699 IP extended access list (expanded range)

QUESTION 580
You want to make sure that you only receive routing updates about networks in the 10.x.x.x range. What command would you use?

A. distribute-list
B. access-group
C. access-class
D. policy routing

Answer: A

Explanation: Distribute-list is the best option of the one that are viable

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QUESTION 581
Which BGP attribute is set to tell an external AS which of your BGP paths is most preferred as the entry point to your AS?

A. MED
B. Local Pref
C. Weight
D. Origin
E. Entry

Answer: A

QUESTION 582
You want to filter traffic using IOS firewall (CBAC). Your traffic is HTTP, TFTP, and TELNET.
You create an inspection rule with the command "ip inspect name ccie tcp" and apply it to the Ethernet interface with the command "ip inspect ccie in".
Which of the following are correct? (Select all that apply)

A. HTTP through the firewall is enabled.
B. IPP through the firewall is enabled.
C. TFTP through the firewall is enabled.
D. None of these are enabled. There is more to do.
E. All of the protocols are enabled.

Answer: A, B

Explanation:

QUESTION 583
What will filter packets based on upper layer session information?

A. reflexive access-lists
B. dynamic access-lists
C. standard access-lists
D. firewalls
E. lock-and-key

Answer: A

Explanation: Reflexive access lists are similar in many ways to other access lists. Reflexive access lists contain condition statements (entries) that define criteria for permitting IP packets. These entries are evaluated in order, and when a match occurs, no more entries are evaluated. However, reflexive access lists have significant differences from other types of access lists. Reflexive access lists contain only temporary entries; these entries are automatically created when a new IP session begins (for example, with an outbound packet), and the entries are removed when the session ends. Reflexive access lists are not themselves applied directly to an interface, but are "nested" within an extended named IP access list that is applied to the interface. (For more information about this, see the section "Reflexive Access Lists Configuration Task List" later in this chapter

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QUESTION 584
Exhibit:
ip http server
ip http access-class 1
access-list 1 deny any
access-list 1 permit any
Look at the attached exhibit. Who can access your router through the http interface?

A. Anyone
B. No one.
C. Only people on the 10.0.0.0 network.
D. The http server is not enabled.
E. Anyone with a username/password.

Answer: B

Explanation: ACCESS-LIST 1 is a DENY first

QUESTION 585
What Cisco IOS feature examines packets received to make sure that the source address and interface are in the routing table and match the interface that the packet was received on?

A. Unicast RPF
B. Dynamic access-lists
C. lock-and-key
D. ip audit
E. ip cef

Answer: A

Explanation: The Unicast RPF feature helps mitigate problems caused by the introduction of malformed or forged (spoofed) IP source addresses into a network by discarding IP packets that lack a verifiable IP source address.

QUESTION 586
Which of the following are distance-vector routing protocols? (Select all that apply)

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

Answer: A, B

QUESTION 587
In Unix, where are failed super-user level access attempts stored?

A. /var/adm/sulog
B. /var/adm/wtmp
C. /etc/adm/sulog
D. /etc/wtmp
E. /etc/shadow

Answer: A

Explanation: This file contains a history of su(1M) command usage. As a security measure, this file should not be readable by others. Truncate the /var/adm/sulog file periodically to keep the size of the file within a reasonable limit. The /usr/sbin/cron, the /sbin/rc0, or the /sbin/rc2 command can be used to clean up the sulog file. You can add the appropriate commands to the /var/spool/cron/crontabs/root file or add shell commands to directories such as /etc/rc2.d, /etc/rc3.d, and so on. The following two line script truncates the log file and saves only its last 100 lines:

QUESTION 588
What is the BGP attribute that is most important on Cisco routers?

A. weight
B. local pref
C. MED
D. origin
E. as path
F. next hop

Answer: A

QUESTION 589
How could you deny telnet access to the aux port of your router?

A. access-list 52 deny 0.0.0.0 255.255.255.255
line aux 0
access-class 52 in
B. access-list 52 deny 0.0.0.0 255.255.255.255
line aux 0
access-group 52 in
C. There is no telnet access to the aux port.
D. You cannot do this.
E. access-class 52 permit 0.0.0.0 255.255.255.255
line aux 0
access-class 52 in

Answer: A

QUESTION 590
Which can control the per-user authorization of commands on a router?

A. RADIUS
B. TACACS+
C. IPSec
D. AAAA
E. NTLM

Answer: B