

WWW.REAL-EXAMS.NET

The Quickest Way To Get Certified

**642-501
(SECUR)**

TestKing's Securing Cisco IOS Networks

Version 10.1



Please Read Carefully

This Study Guide has been carefully written and compiled by Real-Exams experts. It is designed to help you learn the concepts behind the questions rather than be a strict memorization tool. Repeated readings will increase your comprehension.

We continually add to and update our Study Guides with new questions, so check that you have the latest version of this Guide right before you take your exam.

For security purposes, each PDF file is encrypted with a unique serial number associated with your Real-Exams account information. In accordance with International Copyright Law, Real-Exams reserves the right to take legal action against you should we find copies of this PDF file has been distributed to other parties.

Please tell us what you think of this Study Guide. We appreciate both positive and critical comments as your feedback helps us improve future versions.

We thank you for buying our Study Guides and look forward to supplying you with all your Certification training needs.

Good studying!

Real-Exams Technical and Support Team

Note 1:

Section A contains 106 questions.

Section B contains 80 questions.

The total number of questions is 186.

Each section starts with QUESTION NO :1. There are no missing questions.

Note 2 : Answers to the unanswered questions will be provided shortly. First customer, if any, faster than us in providing answers will receive credit for each answer provided.

Section A

QUESTION NO: 1

You are the administrator for Testking, Inc. Your job today is to configure a start-accounting record for a Point-to-Point session to be sent to a TACACS+ server. Which configuration command will do this?

- A. `aaa accounting network default start-stop tacacs+`
- B. `aaa authentication ppp start tacacs+`
- C. `aaa authorization exec default tacacs+`
- D. `aaa authorization network default tacacs+`
- E. `aaa accounting network default stop-only tacacs+`

Answer: A

Explanation:

```
aaa accounting {system | network | exec | command level} {start-stop |
wait-start | stop-only} {tacacs+ | radius}
no aaa accounting {system | network | exec | command level}
```

network Runs accounting for all network-related service requests, including SLIP, PPP, PPP NCPs, and ARAP.

start-stop Sends a start accounting notice at the beginning of a process and a stop accounting notice at the end of a process. The start accounting record is sent in the background. The requested user process begins regardless of whether or not the start accounting notice was received by the accounting server.

tacacs+ Enables the TACACS-style accounting.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1826/products_command_summary_chapter09186a00800d9c0e.html

QUESTION NO: 2

John at Testking Inc. just finished configuring multiple transform sets. Where does he have to specify the transform sets?

- A. router interface
- B. crypto map entry
- C. ACL
- D. ISAKMP policy

Answer: B

Explanation:

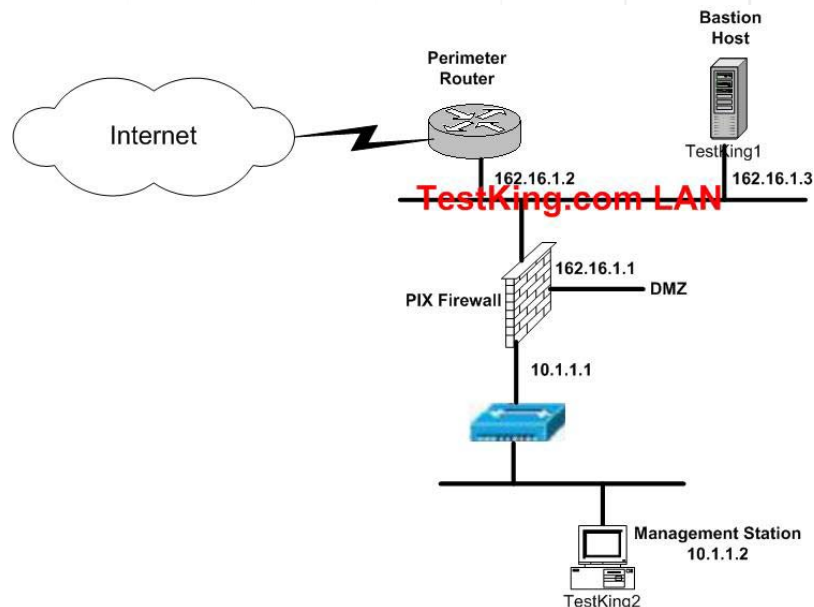
Crypto map set transform-set command:

Specifies which transform sets can be used with the crypto map entry. List multiple transform sets in order of priority, with the highest-priority transform set first.

Reference: Cisco Secure PIX Firewall (Ciscopress) page 217

QUESTION NO: 3

Exhibit:



You are the administrator at Testking Inc. and you need to add an ACL statement to protect against address spoofing when applied inbound on the external interface of the perimeter router.

Which one of these commands is correct?

- A. access-list 101 deny IP 162.16.1.0 0.0.0.255. 0.0.0.0 255.255.255.255
- B. access-list 101 deny UDP 162.16.1.0 255.255.0.0 0.0.0.0 255.255.255.255
- C. access-list 101 deny IP 162.16.1.0 255.255.255.0 0.0.0.0 255.255.255.255
- D. access list 101 permit IP 162.16.1.0 255.255.0.0 0.0.0.0 255.255.255.255

Answer: A

Explanation:

access-list 101 deny IP 162.16.1.0 0.0.0.255 0.0.0.0 255 255.255.255

access-list command – command to deny access to the 162.16.1.0 0.0.0.255 addresses from any address (0.0.0.0 255.255.255.255)

Reference: Managing Cisco Network Security (Ciscopress) page Appendix C

QUESTION NO: 4

Jacob at Testking Inc. was given the assignment to secure the network from giving out unauthorized information. His first step is to prevent the perimeter router from divulging topology information by telling external hosts which subnets are not configured. Which command fits this objective?

- A. no source-route
- B. no ip route-cache
- C. no service udp-small-servers
- D. no ip unreachable

Answer: D

Explanation:

To enable the generation of Internet Control Message Protocol (ICMP) unreachable messages, use the **ip unreachable** command in interface configuration mode. To disable this function, use the **no** form of this command.

Reference:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios123/123cgcr/ipras_r/ip1_i2g.htm#1082329

QUESTION NO: 5

Exhibit:

```
service password-encryption
!
aaa new-model
aaa authentication login default line
aaa authentication login nologin name
aaa authentication login admin tacacs+ enable
aaa authentication ppp default tacacs+
!
enable secret 5 $1$WogB$7.0FLEFgB8Wp.C9eqNX9L/
!
!
```

```
interface Group-Async
ip unnumbered Loopback0
ip tcp header-compression passive
encapsulation ppp
async mode interactive
```

John at Testking Inc. is looking at this configuration to figure out what method authenticates through the vty port. Which method is correct?

- A. no access permitted
- B. line password
- C. no authentication required
- D. default authentication used

Answer: B

Explanation:

Enabling Authentication for Login

Using the **aaa authentication login** command and the following keywords, you create one or more lists of authentication methods that are tried at login. The lists are used with the **login authentication** line configuration command.

Enter the following command in global configuration mode to enable authentication for login:

```
Switch# aaa authentication login {default | list-name} method1
[...[method3]]
```

The keyword *list-name* is any character string used to name the list you are creating. The *method* keyword refers to the actual method the authentication algorithm tries, in the sequence entered. You can enter up to three methods:

Keyword Description

line Uses the line password for authentication.

local Uses the local username database for authentication.

tacacs+ Uses TACACS+ authentication.

Reference:

http://www.cisco.com/en/US/products/hw/switches/ps637/products_configuration_guide_chapter09186a008007f032.html#35679

QUESTION NO: 6

You are the administrator in charge of the Management Center for VPN routers and are having problems communicating with other VPN routers. Which protocol does the Management Center for VPN Routers use to communicate with VPN routers?

- A. SNMP
- B. HTTPS
- C. HTTP
- D. IPSec
- E. SSH
- F. AES

Answer: E

Explanation:

Prerequisites for Working with Router MC

Following are some prerequisites for working with Router MC:

- SSH must be enabled on your devices if you want to import or deploy to live devices.

Reference: Using Management Center for VPN Routers 1.2

QUESTION NO: 7

Kathy is the administrator who is configuring IOS firewall IDS. She has two issues to consider when implementing IOS Firewall IDS. Which of these will she select? (Choose two)

- A. Signature length
- B. Memory usage
- C. Number of router interfaces
- D. Signature coverage
- E. Number of DMZs

Answer: B D

Explanation:

Memory and Performance Impact

The performance impact of intrusion detection will depend on the configuration of the signatures, the level of traffic on the router, the router platform, and other individual features enabled on the router such as encryption, source route bridging, and so on. Enabling or disabling individual signatures will not alter performance significantly, however, signatures that are configured to use Access Control Lists will have a significant performance impact.

Because this router is being used as a security device, no packet will be allowed to bypass the security mechanisms. The IDS process in the Cisco IOS Firewall router sits directly in the packet path and thus will search each packet for signature matches. In some cases, the entire packet will need to be searched, and state information and even application state and awareness must be maintained by the router.

For auditing atomic signatures, there is no traffic-dependent memory requirement. For auditing compound signatures, CBAC allocates memory to maintain the state of each session

for each connection. Memory is also allocated for the configuration database and for internal caching.

Cisco IOS Firewall IDS Signature List

The following is a complete list of Cisco IOS Firewall IDS signatures. A signature detects patterns of misuse in network traffic. In Cisco IOS Firewall IDS, signatures are categorized into four types:

- Info Atomic
- Info Compound
- Attack Atomic
- Attack Compound

An info signature detects information-gathering activity, such as a port sweep.

An attack signature detects attacks attempted into the protected network, such as denial-of-service attempts or the execution of illegal commands during an FTP session.

Info and attack signatures can be either atomic or compound signatures. Atomic signatures can detect patterns as simple as an attempt to access a specific port on a specific host.

Compound signatures can detect complex patterns, such as a sequence of operations distributed across multiple hosts over an arbitrary period of time.

The intrusion-detection signatures included in the Cisco IOS Firewall were chosen from a broad cross-section of intrusion-detection signatures as representative of the most common network attacks and information-gathering scans that are not commonly found in an operational network.

The following signatures are listed in numerical order by their signature number in the Cisco Secure IDS Network Security Database. After each signature's name is an indication of the type of signature (info or attack, atomic or compound).

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1835/products_configuration_guide_chapter09186a00800ca7c6.html#1000971

QUESTION NO: 8

James the administrator on Testking is trying to figure out which router table is modified or prevented from updating, if a rerouting attack occurs. (Choose one)

- A. ARP
- B. address
- C. bridging
- D. routing

Answer: D

Explanation:

Route filters can be set up on any interface to prevent learning or propagating routing information inappropriately. Some routing protocols (such as EIGRP) allow you to insert a

filter on the routes being advertised so that certain routes are not advertised in some parts of the network.

Reference: Managing Cisco Network Security (Cisco Press) page 233

QUESTION NO: 9

John and Kathy are working on configuring the IOS firewall together. They are figuring out what CBAC uses for inspection rules to configure on a per-application protocol basis. Which one of these is the correct one?

- A. ODBC filtering
- B. Tunnel, transport models, or both
- C. Alerts and audit trails
- D. Stateful failover

Answer: C

Explanation:

CBAC also generates real-time alerts and audit trails. Enhanced audit trail features use SYSLOG to track all network transactions. Real-time alerts send SYSLOG error messages to central management consoles upon detecting suspicious activity. Using CBAC inspection rules, you can configure alerts and audit trail information on a per-application protocol basis.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1835/products_configuration_guide_chapter09186a00800ca7c1.html

QUESTION NO: 10

You are the network security administrator for TestKing.com. TestKing has just added TACACS+ AAA authentication to their remote access topology, requiring you to add two TACACS+ servers to the TestKingPR perimeter router configuration. First, enable the router's AAA access control model and then add the two TACACS+ servers and their respective keys. Use the following values as necessary:

Parameter:	Value
TACACS+ Server TestKing1 – IP address	10.10.1.2
TACACS+ Server TestKing1 – Key	TestKing1
TACACS+ Server TestKing2 – IP address	10.10.1.3
TACACS+ Server TestKing2 – Key	TestKing2

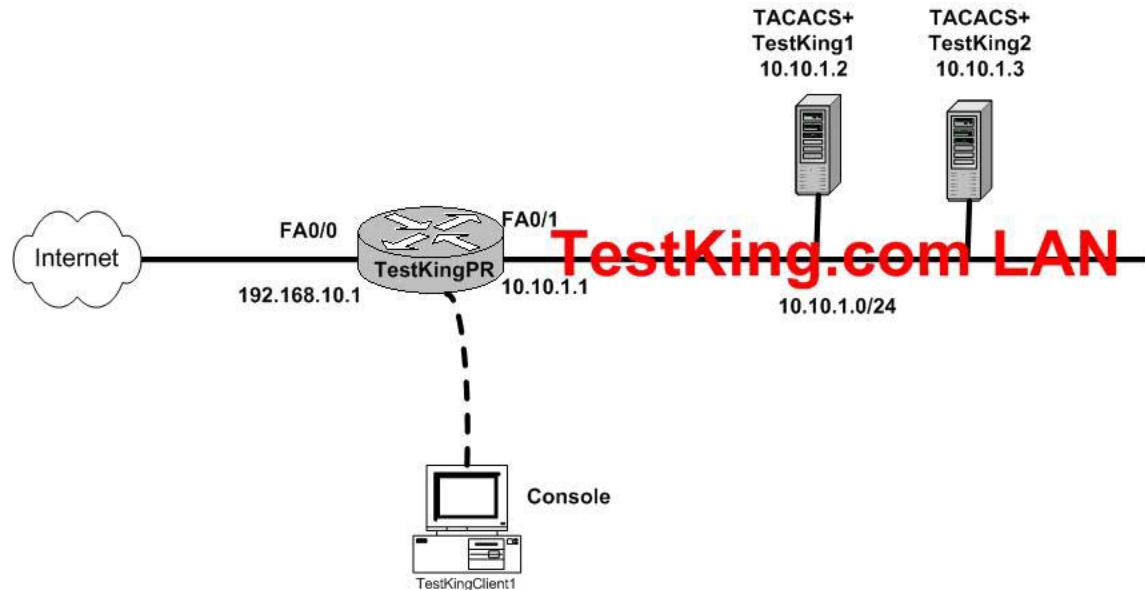
Enable secret password is "testking"

Perimeter Router:

Name: TestKingPR

FA0/0 : 192.168.10.1
 FA0/1 : 10.10.1.1
 Secret password: testking

To configure the router click on the host icon that is connected to a router by a serial cable.



Answer:

Config t

Tacacs-server host 10.10.1.2 key TestKing1

Tacacs-server host 10.10.1.3 key TestKing2

Note: On actual test you are unable to enter the command

Reference:

http://www.cisco.com/en/US/products/hw/switches/ps637/products_configuration_guide_chapter09186a008007f032.html#xtocid238207

QUESTION NO: 11

Brain the security administrator is in charge of creating a security policy for Testking Inc. Which two statements about the creation of a security policy are true? (Choose two)

- A. It helps Chief Information Officers determine the return on investment of network security at Testking Inc.
- B. It defines how to track down and prosecute policy offenders at Testking Inc.
- C. It helps determine which vendor security equipment or software is better than others.

- D. It clears the general security framework so you can implement network security at Testking Inc.
- E. It provides a process to audit existing network security at Testking Inc.
- F. It defines which behavior is and is not allowed at Testking Inc.

Answer: E F

Explanation:

Reasons to create a network security policy:

- Provides a process to audit existing network security
- Provides a general security framework for implementing network security
- Defines which behavior is and is not allowed
- Often helps determine which tools and procedures are needed for the organization
- Helps communicate consensus among a group of key decision-makers and defines responsibilities of users and administrators
- Defines a process for handling network security incidents
- Enables global security implementation and enforcement
- Creates a basis for legal action if necessary

Reference: Managing Cisco Network Security (Cisco Press) page 43

QUESTION NO: 12

You are the security administrator for Testking and you need to know what CBAC does on the Cisco IOS Firewall. Which one of these is the best answer?

- A. Creates specific security policies for each user at Testking Inc.
- B. Provides additional visibility at intranet, extranet, and Internet perimeters at Testking Inc.
- C. Protects the network from internal attacks and threats at Testking Inc.
- D. Provides secure, per-application access control across network perimeters at Testking Inc.

Answer: D

Explanation:

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. CBAC maintains connection state information for individual connections. This state information is used to make intelligent decisions about whether packets should be permitted or denied, and dynamically creates and deletes temporary openings in the firewall.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1831/products_configuration_guide_chapter09186a00800d9815.html

QUESTION NO: 13

John the security administrator is working on Cisco Easy VPN. His job today is to know what two IPSec attributes that are not supported by Cisco Easy VPN. (Choose two)

- A. Tunnel mode
- B. Manual keys
- C. DH 2
- D. RSA digital signatures
- E. Pre-shared keys
- F. PFS

Answer: B F

Explanation:

Table 1 NonSupported IPSec Protocol Options and Attributes

Options	Attributes
Authentication Types	Authentication with public key encryption Digital Signature Standard (DSS)
Diffie-Hellman Group	1
IPSec Protocol Identifier	IPSEC_AH
IPSec Protocol Mode	Transport mode
Miscellaneous	Manual keys Perfect Forward Secrecy (PFS)

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1839/products_feature_guide09186a0080087d1e.html

QUESTION NO: 14

John the security administrator is configuring a Cisco router for IPSec using pre-shared keys, why should he configure a crypto map with two peers specified for redundancy?

- A. The second peer becomes the primary peer.
- B. The second peer monitors activity of the first peer.
- C. If the first peer cannot be contacted, the second peer is used.
- D. There are not circumstances in which you should do this.

Answer: C

Redundancy

You can define multiple peers by using crypto maps to allow for redundancy. If one peer fails, there will still be a protected path. The peer that packets are actually sent to is determined by the last peer that the PIX Firewall heard from (received either traffic or a negotiation request from) for a given data flow. If the attempt fails with the first peer, IKE tries the next peer on the crypto map list.

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps2120/products_user_guide_chapter09186a00801aed88.html

QUESTION NO: 15

Kathy is in charge of configuring a Cisco router for IKE using RSA signatures, before she initiates the crypto key generate rsa command, what should Kathy do?

- A. Kathy should generate general purpose keys.
- B. Kathy should save the command in the router configuration before she initiates the crypto key generate rsa command.
- C. Kathy should save the keys in a private configuration in NVRAM.
- D. Kathy should configure a hostname and IP domain name for your router.

Answer: D

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1828/products_command_summary_chapter09186a00800eeaf5.html#5887

QUESTION NO: 16

Kathy is looking for the command that deletes all of the routers RSA keys. Which command is correct?

- A. **crypto key zeroize rsa**
- B. **crypto key remove rsa**
- C. **crypto key delete rsa**
- D. **crypto key remove rsa all**

Answer: A

Explanation:

crypto key zeroize rsa

To delete all of your router's RSA keys, use the **crypto key zeroize rsa** global configuration command.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1828/products_command_summary_chapter09186a00800eeaf4.html#5124

QUESTION NO: 17

John is the administrator at Testking Inc. and his assignment today is to find the two types of signature implementations that the IOS Firewall IDS can detect.

Which two are correct? (Choose two)

- A. Atomic
- B. Compound
- C. Dynamic
- D. Regenerative
- E. Cyclical
- F. Complex

Answer: A B

Explanation:

Cisco IOS Firewall IDS Signature List

The following is a complete list of Cisco IOS Firewall IDS signatures. A signature detects patterns of misuse in network traffic. In Cisco IOS Firewall IDS, signatures are categorized into four types:

- Info Atomic
- Info Compound
- Attack Atomic
- Attack Compound

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1835/products_configuration_guide_chapter09186a00800ca7c6.html#78832

QUESTION NO: 18

You are the administrator of Testking Inc. and your job today is to find out which Easy VPN feature enables two IPSec peers to determine if the other is still “alive”?

- A. Dead Peer Timeout
- B. Dead Peer Detection
- C. No Pulse Timer
- D. Peer Death Monitor
- E. Peer Heartbeat

Answer: B

Enabling IKE Dead Peer Detection

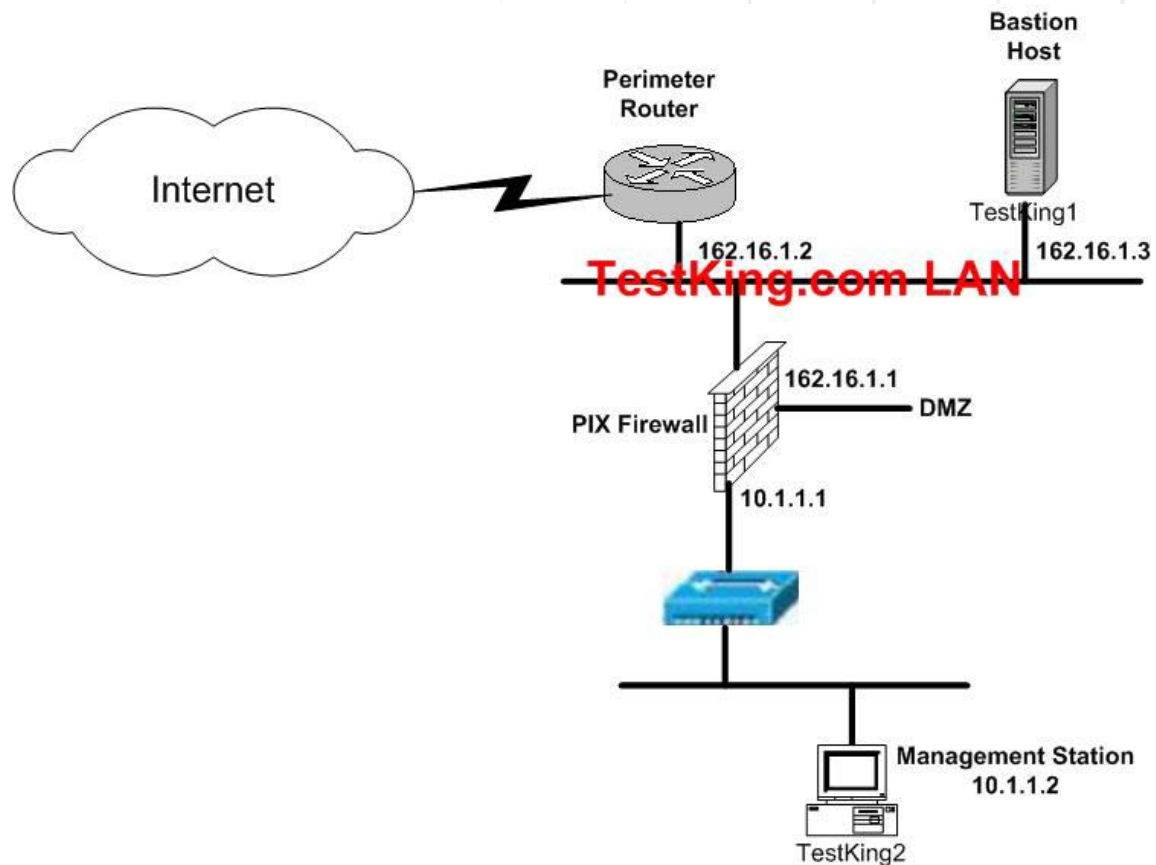
To enable a Cisco IOS VPN gateway (instead of the client) to send IKE DPD messages, perform the following steps

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1839/products_feature_guide09186a0080087d1e.html#1051234

QUESTION NO: 19

Exhibit:



Greg has just started working as the security administrator at Testking Inc. His manager asked him to prevent Internet users from pinging the PIX. Which ACL statement should be configured on the external interface of the perimeter router?

- A. access-list 102 deny tcp any 162.16.1.1 0.0.0.0
- B. access-list 102 permit tcp any 162.16.1.1 0.0.0.0 echo
- C. access-list 102 deny icmp any 162.16.1.1 0.0.0.0 echo-reply
- D. access-list 102 deny icmp any 162.16.1.1 0.0.0.0 echo

Answer: D

Explanation:

Echo added to the end of the command implies no ping requests to the PIX.

Reference: Managing Cisco Network Security (Ciscopress) pages 728

QUESTION NO: 20

John is the administrator working on configuring the authentication proxy feature. He is not sure what the authentication proxy feature does on the Cisco IOS Firewall.

- A. Use a general policy applied across multiple Testking Inc. users
- B. Use a single security policy that is applied to an entire user group or subnet at Testking Inc.
- C. Apply specific security policies on a per-user basis at Testking Inc.
- D. Keep the Testking Inc. user profiles active even where there is no active traffic from the authenticated users.

Answer: C

The Cisco IOS Firewall authentication proxy feature allows network administrators to apply specific security policies on a per-user basis. Previously, user identity and related authorized access was associated with a user's IP address, or a single security policy had to be applied to an entire user group or sub network. Now, users can be identified and authorized on the basis of their per-user policy, and access privileges tailored on an individual basis are possible, as opposed to general policy applied across multiple users.

With the authentication proxy feature, users can log in to the network or access the Internet via HTTP, and their specific access profiles are automatically retrieved and applied from a CiscoSecure ACS, or other RADIUS, or TACACS+ authentication server. The user profiles are active only when there is active traffic from the authenticated users.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1831/products_configuration_guide_chapter09186a00800d981d.html#1001076

QUESTION NO: 21

John the security administrator at Testking Inc. needs to select three types of authentication supported by Cisco Secure ACS 3.0.1. (Choose three)

- A. HMAC
- B. EAP-TLS
- C. DH-1
- D. AAA
- E. LEAP
- F. EAP-MD5

Answer: B D F

Explanation:

EAP-MD5, EAP-TLS—In addition to supporting LEAP, Cisco Secure ACS supports EAP-MD5 and EAP-TLS authentication. EAP is an IETF RFC standard for carrying various authentication methods over any PPP connection. EAP-MD5 is a username/password method incorporating MD5 hashing for security. EAP-TLS is a method for authenticating both Cisco Secure ACS and users with X.509 digital certificates. This method also provides dynamic session key negotiation.

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps2086/prod_release_note09186a00800ada4c.html

QUESTION NO: 22

John the administrator is working on defending the network against attack. He needs to know which Cisco IOS feature defends against an unauthorized access attempt?

- A. IKE
- B. IPSO
- C. TCP intercept
- D. IOS ACLs
- E. CBAC

Answer: D

Access list permits who can enter and leave the network when it is applied to the interface of a perimeter router.

QUESTION NO: 23

TestKing.com, a fast food company, has recently expanded and assumed the responsibility for three additional brands of fast food. Due to this expansion the computer systems have been upgraded and sensitive data will now be transmitted between the offices. Tess, the network administrator of the TestKing.com, has decided to implement a secure IPSec connection between the two offices. The TestKing1 router has been completely configured. The TestKing2 router has been configured but is missing the IKE parameters.

IKE is enabled. Configure the following IKE parameters on the TestKing2 router:

- The policy priority should be set to 200.
- The peer authentication method should be pre-shared keys.
- The encryption algorithm should be 3-des.
- DH group 2 should be used.
- The hash algorithm should be md5.
- The pre-shared key should be specified as "fastfood".
- The tunnel should be terminated on the serial interface.
- All other IKE parameters are set as default.
- You will not be able to initiate traffic to bring up the tunnel.

The routers have been configured with the following specifications:

- The routers are named TestKing1 and TestKing2.
- The secret password on the TestKing2 router is "testking"
- The IP addresses are shown.

LAB A

Name : TestKing2

E0/0 : 10.0.12.3/24

S0/0 : 172.18.12.2/24

Secret Password: testking

LAB B

Name: TestKing1

E0/0: 10.0.30.3/24

S0/0: 172.18.37.2/24

Click on the picture of the host connected to a router by a serial console cable.



Answer:

```
TestKing2 (config)# crypto isakmp enable
```

```
TestKing2 (config)# crypto isakmp policy 200
```

```
TestKing2 (config-isakmp)# encryption 3des
```

```
TestKing2 (config-isakmp)# hash md5
```

```
TestKing2 (config-isakmp)# authentication pre-share
```

```
TestKing2 (config-isakmp)# group 2
```

```
TestKing2 (config-isakmp)# crypto isakmp key fastfood address 172.18.37.2
```

Reference:

Configuring Internet Key Exchange Security Protocol

http://www.cisco.com/en/US/products/sw/iosswrel/ps1831/products_configuration_guide_chapter09186a00800d9821.html

QUESTION NO: 24

George is the administrator at Testking Inc. working on acquiring a position in the security department. He is studying the OSI layer model and is trying to find out which OSI layer does IPSec provide security services?

- A. session
- B. transport
- C. network
- D. presentation
- E. application

Answer: C

Explanation:

IPSec uses a type of encryption known as packet encryption. It is referred to as packet encryption because it takes place at the network layer, or layer 3 in the OSI reference model. Because this encryption takes place above the data link layer (layer 2), communication takes place in the form of distinct packets or datagrams, depending on which protocol controls the session (TCP or UDP). Packet encryption is often called end-to-end encryption because the encryption process takes place only at the source and destination endpoints

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps2133/products_user_guide_chapter09186a00800e9586.html

QUESTION NO: 25

John the administrator at Testking Inc. is looking at the router configuration to help him look for the following debug output, which two statements are true? (Choose two)

```
1d16h: %LINK-3-UPDOWN: Interface Serial3/0, changed state to up
*Mar 2 16:52:15.297: Se3/0 PPP: Treating connection as a dedicated line
*Mar 2 16:52:15.441: Se3/0 PPP: Phase is AUTHENTICATING, by this end
*Mar 2 16:52:15.445: Se3/0 CHAP: O CHALLENGE id 7 len 29 from 'NASx'
```

- A. The user identity is NASx.
- B. This is a connection attempt to an async port.
- C. The connection is established on serial interface 3/0.
- D. The client is attempting to setup a Serial Line Internet Protocol connection.
- E. The user is authenticating using CHAP.

F. The DHCP server sends a getpass request to prompt for the password.

Answer: C E

Explanation:

ld16h: %LINK-3-UPDOWN: Interface Serial3/0, changed state to up

The “up” means the serial interface has connectivity.

The CHAP initiation sequence and three-way handshake occur as follows:

1. The PPP link is established after dialup.
2. The network access server (NAS) tells the remote client to use CHAP.
3. The remote client responds with an OK.
4. The three-way handshake occurs as follows:
 - a. The network access server sends a challenge message to the remote client.
 - b. The remote client replies with a one-way hash value.
 - c. The network access server processes the received hash value. If it matches the station’s own calculation, authentication is acknowledged.

Reference: Managing Cisco Network Security (Ciscopress) page 123

QUESTION NO: 26

John the security administrator at Testking Inc. is in charge of the IOS router firewall.

His job today is to choose the three actions that the IOS Firewall IDS router may perform when a packet, or a number of packets in a session, match a signature.

(Choose three)

- A. Forward packet to the Cisco IDS host server for further analysis
- B. Send an alarm to Cisco IOS director or syslog
- C. Send an alarm to Cisco Secure ACS
- D. Set the packet reset flag and forward the packet through
- E. Drop the packet immediately
- F. return packet to the sender

Answer: B, D, E

Cisco Self-Study CCSP SECUR page 290

QUESTION NO: 27

Jason is the security administrator at Testking Inc. and his assignment today is to find out in crypto map configuration mode, which command lets you manually specify the IPSec session keys with a crypto map entry?

- A. set crypto map
- B. set ipsec-manual
- C. no set security-association
- D. set security-association

Answer: D**set security-association level per-host**

To specify that separate IP Security security associations should be requested for each source/destination host pair, use the **set security-association level per-host** crypto map configuration command. To specify that one security association should be requested for each crypto map access list **permit** entry, use the **no** form of this command.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1835/products_command_summary_chapter09186a0080087228.html#1018772

QUESTION NO: 28

John is the administrator working on configuring the authentication proxy feature. He is not sure what the authentication proxy feature does on the Cisco IOS Firewall.

- A. Creates specific security polices for each user with Cisco Secure ACS, dynamic, per-user authentication and authorization.
- B. Creates specific authorization policies for each user with Cisco Secure ACS, dynamic, per-user security and authorization.
- C. Provides additional visibility at intranet, extranet, and Internet perimeters.
- D. Provides secure, per-application access control across network perimeters.

Answer: A**Explanation:**

The Cisco IOS Firewall authentication proxy feature allows network administrators to apply specific security policies on a per-user basis. Previously, user identity and related authorized access was associated with a user's IP address, or a single security policy had to be applied to an entire user group or sub network. Now, users can be identified and authorized on the basis of their per-user policy, and access privileges tailored on an individual basis are possible, as opposed to general policy applied across multiple users.

With the authentication proxy feature, users can log in to the network or access the Internet via HTTP, and their specific access profiles are automatically retrieved and applied from a CiscoSecure ACS, or other RADIUS, or TACACS+ authentication server. The user profiles are active only when there is active traffic from the authenticated users.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1831/products_configuration_guide_chapter09186a00800d981d.html#1001076

QUESTION NO: 29

Kathy is the security administrator at Testking Inc. and needs to identify two packet mode access methods. Choose two packet mode access methods. (Choose two)

- A. Sync
- B. BRI

- C. Group-sync
- D. Telnet
- E. tty
- F. Async

Answer: B F

Explanation:

AAA and Packet-Mode Traffic

AAA technologies can also protect dialup access in the packet or interface mode via async, group-async, Basic Rate Interface (BRI) ISDN lines, or Primary Rate Interface (PRI) ISDN interfaces on Cisco Routers.

Reference: Managing Cisco Network Security (Cisco Press) page 114

QUESTION NO: 30

John the administrator at Testking Inc. is working on securing the router passwords. Which IOS command encrypts all clear text passwords in a router configuration?

- A. service password-encryption
- B. service password md5
- C. encrypt passwords
- D. enable password-encryption
- E. service password-encrypted

Answer: A

Explanation:

service password-encryption

To encrypt passwords, use the **service password-encryption** global configuration command. Use the **no** form of this command to disable this service.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1826/products_command_summary_chapter09186a00800d9c26.html#xtocid188698

QUESTION NO: 31

James the administrator of Testking Inc. is working on the IDS for the network. He needs to know what kind of signatures trigger on a single packet. (Choose one)

- A. Regenerative
- B. Cyclical
- C. Dynamic
- D. Atomic
- E. Compound

Answer: D

Signature structure

The signature structure indicates whether the signature implementation is either content or composite. Atomic signatures occur in a single packet, whereas composite signatures can be spread across multiple packets.

Reference: Cisco Secure Intrusion Detection System (Cisco Press) page 192

QUESTION NO: 32

Kathy is the administrator and is working on certificates as part of her daily duties. She needs to know what defines the standard certificate format.

- A. CEP
- B. CRLv2
- C. ISAKMP
- D. X.509v3

Answer: D

Explanation:

CA supports the following standards:

- X.509v3 certificates
- Public-Key Cryptography Standard #7 (PKCS #7)—A standard from RSA Data Security, Inc. used to encrypt and sign certificate enrollment messages.
- Public-Key Cryptography Standard #10 (PKCS #10)—A standard syntax from RSA Data Security, Inc. for certificate requests.
- RSA Keys—RSA is the public key cryptographic system developed by Ron Rivest, Adi Shamir, and Leonard Adleman. RSA keys come in pairs: one public key and one private key.

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps2120/products_configuration_guide_chapter09186a008008993c.html

QUESTION NO: 33

John the security administrator at Testking Inc. is in charge of securing the network against Chargen attacks. Which two commands prevent a Chargen attack? (Choose two)

- A. no ip redirects
- B. no tcp-small-servers
- C. no ip-source route
- D. no chargen enable
- E. no udp-small-servers

F. no service finger

Answer: B E

Explanation:

TCP and UDP "Small Services"

By default, Cisco devices up through IOS version 11.3 offer the "small services": echo, chargen, and discard. These services, especially their UDP versions, are infrequently used for legitimate purposes, but can be used to launch denial of service and other attacks that would otherwise be prevented by packet filtering.

For example, an attacker might send a DNS packet, falsifying the source address to be a DNS server that would otherwise be unreachable, and falsifying the source port to be the DNS service port (port 53). If such a packet were sent to the Cisco's UDP echo port, the result would be the Cisco sending a DNS packet to the server in question. No outgoing access list checks would be applied to this packet, since it would be considered to be locally generated by the router itself.

Although most abuses of the small services can be avoided or made less dangerous by anti-spoofing access lists, the services should almost always be disabled in any router which is part of a firewall or lies in a security-critical part of the network. Since the services are rarely used, the best policy is usually to disable them on all routers of any description.

The small services are disabled by default in Cisco IOS 12.0 and later software. In earlier software, they may be disabled using the commands **no service tcp-small-servers** and **no service udp-small-servers**.

Reference:

http://www.cisco.com/en/US/tech/tk648/tk361/technologies_tech_note09186a0080120f48.shtml

QUESTION NO: 34

John the administrator wants to know which type of key exchange mechanism is Diffie-Hellman.

- A. Private key exchange
- B. RSA keying
- C. Public key exchange
- D. AES key exchange

Answer: C

Explanation:

Diffie-Hellman is used to securely exchange public keys so that shared secret keys can be securely generated for use as DES keys.

Reference: Managing Cisco Network Security (Ciscopress) page 467

QUESTION NO: 35

John from security department at Testking Inc. is looking for an external database for CSACS for windows. Which three external databases are supported by Cisco Secure ACS for Windows? (Choose three)

- A. Token Server
- B. SQL-Linux
- C. Netware NDS
- D. ODBC
- E. Windows-NT/2000
- F. AAA

Answer: C D E

Explanation:

CSNT can authenticate users who are defined in Network Operating System Security databases or directory services, such as Novell NDS or Window NT accounts database, and it supports authentication forwarding to LDAP servers. ODBC support is available to rapidly import a large number of users.

Reference: Managing Cisco Network Security (Ciscopress) page 183

QUESTION NO: 36

John the security administrator for Testking Inc. needs to identify three character mode access methods. Choose three character mode access methods.

- A. ppp
- B. tty
- C. vty
- D. async
- E. acl
- F. aux

Answer: B C F

Explanation:

AAA and Character-Mode Traffic – AAA secure character-mode traffic during login sessions via the lines”

- Aux
- Console
- TTY
- VTY

Reference: Managing Cisco Network Security (Ciscopress) page 113

QUESTION NO: 37

Kathy from the security department at Testking Inc. wants to know what does a half-open TCP session on the Cisco IOS Firewall mean.

- A. Session was denied.
- B. Session has not reached the established state.
- C. Three-way handshake has been completed.
- D. Firewall detected return traffic.

Answer: B

Explanation:

An unusually high number of half-open sessions (either absolute or measured as the arrival rate) could indicate that a denial-of-service attack is occurring. For TCP, "half-open" means that the session has not reached the established state. For UDP, "half-open" means that the firewall has detected traffic from one direction only.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1831/products_command_reference_chapter09186a00800d9806.html

QUESTION NO: 38

Jason the administrator at Testking Inc. is wondering which module is audited first when packets enter an IOS Firewall IDS and match a specific audit rule?

- A. IP
- B. TCP
- C. ICMP
- D. Application level
- E. UDP

Answer: A

Explanation:

Packets going through the interface that match the audit rule are audited by a series of modules, starting with IP; then either ICMP, TCP, or UDP (as appropriate); and finally, the Application level.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1830/products_feature_guide_chapter09186a00800881c0.html

QUESTION NO: 39

John the security Administrator at Testking Inc. is working on IPSec. He quizzes Kathy about AH. He asks her which three statements about AH are true. (Choose three)

- A. AH encrypts the payload for data confidentiality.
- B. AH provides connectionless integrity for the IP datagrams.
- C. AH encapsulates the data.
- D. AH provides protection against replay.
- E. AH uses symmetric secret algorithms.
- F. AH provides data origin authentication for the IP datagrams.

Answer: B D F

Explanation:

Authentication Header – A security protocol that provides authentication and optional replay-detection services. AH acts as a digital signature to ensure data in the IP packet has not been tampered with. AH does not provide data encryption and decryption services.

Reference: Managing Cisco Network Security (Ciscopress) page 525

QUESTION NO: 40

Kathy the security administrator for Testking Inc. is working on defending the network. One of the attacks she is working to defend is SYN flooding and is looking to know which Cisco IOS feature defends against SYN flooding DoS attacks.

- A. Route authentication
- B. Encryption
- C. ACLs
- D. TCP intercept

Answer: D

Explanation:

The TCP intercept feature in Cisco IOS software protects TCP servers from SYN-flooding attacks, a type of DoS attack.

Reference: Managing Cisco Network Security (Ciscopress) page 239

QUESTION NO: 41

Jason the security manager at Testking Inc. is working on the PIX firewall. He needs to figure out which two types of commands are used for testing and verifying IPSec and ISAKMP? (Choose two)

- A. clear
- B. show
- C. interface
- D. crypto map
- E. crypto isakmp policy

F. debug

Answer: B F

Explanation:

Testing and verifying the overall IPSec configuration:

The final step in configuring IPSec for pre-shared keys is to verify that all the IKE and IPSec values were configured correctly and to test it to ensure that it works properly. The PIX Firewall contains a number of show, clear, and debug commands that are useful for testing and verifying IKE and IPSec, which are summarized in this section.

Reference: Managing Cisco Network Security (Ciscopress) page 221

QUESTION NO: 42

John and Kathy are working together at Testking Inc. to find the more secure approach for pre-shared keys between peers. Which one of these answers is correct?

- A. Specify the same key to share with multiple remote peers.
- B. Specify different keys to share between different pairs of peers.
- C. Specify different keys to share with multiple remote peers.
- D. Specify the same key to share between different pairs of peers.

Answer: B

Explanation:

Specify the shared keys at each peer. A given pre-shared key is shared between two peers. At a given peer you could specify the same key to share with multiple peers; however, a more secure approach is to specify different keys to share between different pairs of peers.

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps2120/products_user_guide_chapter09186a0080106f69.html

QUESTION NO: 43

Testking Inc. just hired a new security administrator named Paul. He is working on authentication proxy for his first project. He does not know how the user triggers the authentication proxy after the idle timer expires. Which one of these answers is the right answer?

- A. Authenticates the user.
- B. Initiates another HTTP session.
- C. Enters a new username and password.
- D. Enters a valid username and password.

Answer: B

How the Authentication Proxy Works

When a user initiates an HTTP session through the firewall, the authentication proxy is triggered. The authentication proxy first checks to see if the user has been authenticated. If a valid authentication entry exists for the user, the connection is completed with no further intervention by the authentication proxy. If no entry exists, the authentication proxy responds to the HTTP connection request by prompting the user for a username and password.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1831/products_configuration_guide_chapter09186a00800d981d.html

QUESTION NO: 44

Jason the security administrator at Testking Inc. is not very good with crypto ACLs. He asked the security team what the two functions that crypto ACLs performs on outbound traffic. (Choose two)

- A. Selects outbound traffic that should be protected by IPSec.
- B. Bypasses outbound traffic that should be protected by IPSec.
- C. Select inbound traffic that should be protected by IPSec.
- D. Sends outbound traffic that should be protected by IPSec as clear text.
- E. Discards outbound traffic that should not be protected by IPSec.
- F. Discards outbound traffic that requires protection by IPSec.

Answer: A E

Crypto Access Lists

Crypto access lists are used to define which IP traffic will be protected by crypto and which traffic will not be protected by crypto. For example, access lists can be created to protect all IP traffic between Subnet A and Subnet Y or between Host A and Host B. (These access lists are similar to access lists used with the **access-group** command. With the **access-group** command, the access-list determines which traffic to forward or block at an interface.)

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 **ipsec-isakmp 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.

Reference:

http://www.cisco.com/univercd/cc/td/doc/product/iaabu/pix/pix_v52/ipsec/ipsec.htm#25257

QUESTION NO: 45

John the security administrator at Testking Inc. is working on the IOS Firewall IDS. He needs to select the command used to enable alarming on the IOS Firewall IDS to finish his day of work. Which one of these answers is correct?

- A. **ip audit alarm**
- B. **ip audit syslog-server**
- C. **ip alarm syslog-server**
- D. **ip audit notify**

Answer: D**Explanation:****ip audit notify**

To specify the methods of event notification, use the **ip audit notify** global configuration command. Use the **no** form of this command to disable event notifications.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps5207/products_command_reference_chapter09186a00801a7f83.html

QUESTION NO: 46

Kathy and John the security administrators are working on solving a few problems. Finding out which three statements about ESP are true will help them solve the problems they have. (Choose three)

- A. ESP provides protection to the outer headers.
- B. ESP encapsulates the data.
- C. ESP uses symmetric secret key algorithms.
- D. ESP verifies the integrity of the ESP datagram.
- E. ESP uses asymmetric secret key algorithms.
- F. ESP encrypts the payload for data confidentiality.

Answer: B C F**Explanation:**

ESP is a security protocol used to provide confidentiality (that is, encryption), data origin authentication, integrity, optional anti-replay service, and limited traffic flow confidentiality by defeating traffic flow analysis.

ESP provides confidentiality by performing encryption at the IP packet layer. It supports a variety of symmetric encryption algorithms.

Reference: Managing Cisco Network Security (Ciscopress) page 529

QUESTION NO: 47

John the security administrator at Testking Inc. is using Cisco Easy VPN and needs to know which of these statements are true about Cisco Easy VPN.

- A. All members of a user group must originate on the same model and type of Cisco VPN Client.
- B. Only VPN-enabled Cisco routers and PIX Firewalls may be used as Easy VPN servers.
- C. The maximum amount of Cisco VPN Clients supported by a VPN server is 50.
- D. Centrally managed IPSec policies are pushed to the Cisco VPN Clients by the VPN server.

Answer: D

Explanation:

The Easy VPN Server feature introduces server support for the Cisco VPN Client Release 3.x and later software clients and Cisco VPN hardware clients. The feature allows a remote end user to communicate using IP Security (IPSec) with any Cisco IOS Virtual Private Network (VPN) gateway. Centrally managed IPSec policies are "pushed" to the client by the server, minimizing configuration by the end user.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1839/products_feature_guide09186a0080087d1e.html#69962

QUESTION NO: 48

ESP is the main topic for the day at Testking Inc. Which statement best describes ESP header?

- A. It is inserted before an encapsulated IP header in tunnel mode.
- B. It is inserted before an encapsulated IP header in transport mode.
- C. It is inserted after the IP header and before the upper layer protocol header in tunnel mode.
- D. It is inserted after the IP header and after the upper layer protocol header in transport mode.

Answer: A

Explanation:

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. The information in the unencrypted IP headers is used to route the secure datagram from origin to destination. An unencrypted IP Routing Header might be included between the IP Header and the ESP.

This mode allows a network device, such as a router, to act as an IPSec proxy. That is, the router performs encryption on behalf of the hosts. The source's router encrypts packets and forwards them along the IPSec tunnel. The destination's router decrypts the original IP datagram and forwards it on to the destination system. The major advantage of tunnel mode is that the end systems do not need to be modified to enjoy the benefits of IP Security. Tunnel mode also protects against traffic analysis; with tunnel mode an attacker can only determine the tunnel endpoints and not the true source and destination of the tunneled packets, even if they are the same as the tunnel endpoints. As defined by the IETF, IPSec transport mode can only be used when both the source and the destination systems understand IPSec. In most cases, you deploy IPSec with tunnel mode. Doing so allows you to implement IPSec in the network architecture without modifying the operating system or any applications on your PCs, servers, and hosts.

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 this mode, bandwidth is conserved because there are no encrypted IP headers or IP options.

Only the IP payload is encrypted, and the original IP headers are left intact. This mode has the advantage of adding only a few bytes to each packet. It also allows devices on the public network to see the final source and destination of the packet. This capability allows you to enable special processing (for example, quality of service) in the intermediate network based on the information on the IP header. However, the Layer 4 header will be encrypted, limiting the examination of the packet. Unfortunately, by passing the IP header in the clear, transport mode allows an attacker to perform some traffic analysis. For example, an attacker could see when one CEO sent a lot of packets to another CEO. However, the attacker would only know that IP packets were sent; the attacker would not be able to determine if they were e-mail or another application.

Reference: <http://www.cisco.com/warp/public/707/16.html>

.

QUESTION NO: 49

Jason and Kathy the security administrators are making a game for the security to play. They want the team to match the assigned default with the IKE policy parameter.

Place here	IKE Policy parameter	Select from these
Place here	message encryption algorithm	768 bit Diffie Hellman
Place here	ISAKMP established Sas lifetime	1 day
Place here	key exchange parameters	DES
Place here	peer authentication method	SHA 1
Place here	message integrity algorithm	RSA signature

Answer:

Place here	IKE Policy parameter	Select from these
DES	message encryption algorithm	
1 day	ISAKMP established Sas lifetime	
768 bit Diffie Hellman	key exchange parameters	
RSA signature	peer authentication method	
SHA 1	message integrity algorithm	

Explanation:

IKE Policy Parameters:

- Message encryption algorithm
- ISAKMP established SAs lifetime
- Key Exchange parameters
- Peer authentication method
- Message integrity algorithm

Default Value

56-bit DES-CBC
 86,400 seconds (one day)
 768-bit Diffie-Hellman
 RSA signature
 SHA 1

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps2120/products_user_guide_chapter0918_6a0080089916.html

QUESTION NO: 50

Jason the security administrator was given the following configuration statement. After looking at the command, he knows two statements are true. Which two are correct statements?

(Choose two)

router(config)#aaa authentication login default tacacs+ none

- A. TACACS is the default login method for all authentication.
- B. No authentication is required to login.
- C. IF TACACS process is unavailable, no access is permitted.
- D. RADIUS is the default login method for all authentication.
- E. If the RADIUS process is unavailable, no login is required.
- F. IF the TACACS process is unavailable, no login is required.

Answer: A F

use TACACS+ authentication; if a CiscoSecure ACS is not available, use the NAS's local user database password. However, all other users can only use TACACS+:
none – no authorization is performed.

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps4911/products_user_guide_chapter0918_6a008015c5c3.html

QUESTION NO: 51

Kathy the security administrator was given the following configuration statement. After looking at the command, she knows three statements are true. Which three are correct statements?

(Choose three)

Router(config)#aaa accounting network wait-start radius

- A. The accounting records are stored in a TACACS+ server.
- B. Stop-accounting records for network service requests are sent to the TACACS+ server.
- C. The accounting records are stored on a RADIUS server.
- D. Start-accounting records for network service requests are sent to the local database.
- E. Stop-accounting records for network service requests are sent to the RADIUS server.
- F. The requested service cannot start until the acknowledgment has been received from the RADIUS server.

Answer: C, E, F

Explanation:

Router(config)#aaa accounting network wait-start radius

aaa accounting {system | network | connection | exec | command level} {start-stop | wait-start | stop-only} tacacs+

- Use the **aaa accounting** command to enable accounting and to create named method lists that define specific accounting methods on a per-line or per-interface basis.
- **Network** - Enables accounting for all network-related requests, including SLIP, PPP, PPP network control protocols, and ARAP
- **wait-start** - This keyword causes both a start and stop accounting record to be sent to the accounting server. However, the requested user service does not begin until the start accounting record is acknowledged. A stop accounting record is also sent.

QUESTION NO: 52

John the security administrator at Testking Inc. wants to know which three steps configure RSA keys. (Choose three)

- A. Configure a security algorithm.
- B. Configure the routers hostname and domain name.
- C. Manage RSA keys.
- D. Configure a hash algorithm.
- E. Configure encryption.
- F. Verify key configuration.

Answer: A BE

RSA-encrypted nonces – Public key cryptography requires that each party generate a pseudorandom number (a nonce) and encrypt it in the other party's RSA public key. Authentication occurs when each party decrypts the other party's nonce with a local private key and then uses the decrypted nonce to compute a keyed hash.

Reference: Managing Cisco Network Security (Ciscopress) page 539

QUESTION NO: 53

Kathy the security administrator is working on the IOS Firewall IDS feature. She needs to select the command used to configure the IOS Firewall IDS to globally disable a specific signature.

- A. ip audit signature *sig-id* global
- B. ip audit signature *sig-id* disable
- C. ip audit disable *sig-id*
- D. ip audit disable signature *sig-id*

Answer: B

Explanation**ip audit signature**

To attach a policy to a signature, use the **ip audit signature** command in global configuration mode. To remove the policy, use the **no** form of this command. If the policy disabled a

signature, then the **no** form of this command reenables the signature. If the policy attached an access list to the signature, the **no** form of this command removes the access list.

```
ip audit signature signature-id {disable | list acl-list}
no ip audit signature signature-id
```

Syntax Description

signature-id - Unique integer specifying a signature as defined in the NetRanger Network Security Database.

Disable - Disables the ACL associated with the signature.

List - Specifies an ACL to associate with the signature.

acl-list - Unique integer specifying a configured ACL on the router. Use with the **list** keyword.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps5207/products_command_reference_chapter09186a00801a7f83.html#1073162

QUESTION NO: 54

Paul the security administrator is working to fight against DoS attacks. He has a lot of work to do, starting with knowing which three thresholds CBAC on the Cisco IOS Firewall provides against DoS attacks. (Choose three)

- A. Number of fully open sessions based upon time.
- B. Number of half-open sessions based upon time.
- C. Total number of half-open TCP or UDP sessions.
- D. Total number of fully open TCP or UDP sessions.
- E. Number of fully open TCP-only sessions per host.
- F. Number of half-open TCP-only sessions per host.

Answer: B C F

Half Open Sessions

An unusually high number of half-open sessions (connection requests that are not completed) could indicate that a DoS attack is occurring or that someone is conducting a port scan. CBAC measures both the Total number of half-open sessions and the rate of session establishment attempts. It counts total TCP and UDP half-open sessions and measures the rate of half-open session establishment once per minute. When the number of existing half-open sessions exceeds the max-incomplete high number, CBAC deletes half-open sessions as required to accommodate new connection requests. The software continues to delete half-open requests until the number of existing half-open sessions drops below max-incomplete low number.

Reference: Managing Cisco Network Security (Ciscopress) page 273

QUESTION NO: 55

Greg is working with the security team at Testking Inc., to find out which three statements about the crypto ipsec security-association lifetime command are true. (Choose three)

- A. Indicates data flow to be protected by IPsec.
- B. Selects outbound traffic to be protected by IPsec.
- C. Can optionally configure different IPsec SA lifetimes in crypto maps.
- D. Configures IKE SA lifetime values.
- E. IPsec SA lifetimes are negotiated during IKE Phase 2.
- F. Configure global IPsec SA lifetime values used when negotiating IPsec SAs.

Answer: C E F

Explanation:

Use the **crypto ipsec security-association lifetime** command to configure global lifetimes for IPsec SAs. There are two lifetimes: a "timed" lifetime and a "traffic-volume" lifetime. A security association expires after the first of these lifetimes is reached.

The IPsec SA idle timers are different from the global lifetimes for IPsec SAs. The expiration of the global lifetimes is independent of peer activity. The IPsec SA idle timer allows SAs associated with inactive peers to be deleted before the global lifetime has expired.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1839/products_feature_guide09186a00801541d4.html

QUESTION NO: 56

James the security administrator is working on the Cisco Easy VPN. He needs to select the three types of IPsec encryption algorithms supported by Cisco Easy VPN. (Choose three)

- A. DES
- B. 3DES
- C. NULL
- D. ESP
- E. IPCOMP-LZS
- F. HMAC-MD5

Answer: A B C

Explanation:**Supported IPsec Protocol Options and Attributes**

Encryption Algorithms (IPsec)

- DES
- 3DES

- NULL

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1839/products_feature_guide09186a0080087d1e.html#1051234

QUESTION NO: 57

John the security administrator is having issues with the IOS Firewall authentication proxy. He needs to know what the default idle time of an enabled IOS Firewall authentication proxy before he can start using it.

- A. 60 minutes
- B. 5 seconds
- C. 60 seconds
- D. 5 minutes

Answer: A**Explanation:**

ip auth-proxy auth-cache-time *min* - Sets the global authentication proxy idle timeout value in minutes. If the timeout expires, user authentication entries are removed, along with any associated dynamic access lists. The default value is 60 minutes.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1830/products_feature_guide_chapter09186a00800a17ec.html

QUESTION NO: 58

The security team at Testking Inc., is looking for the command that disables the chargen and echo services on an IOS router?

- A. no tcp-small-servers
- B. disable tcp small-services
- C. disable small services
- D. no service tcp-small-servers

Answer: D

By default, the Cisco router has a series of diagnostic ports enabled for certain UDP and TCP services including echo, chargen, and discard. When a host attaches to those ports, a small amount of CPU capacity is consumed to service these requests

Any network device that has UDP and TCP diagnostic services should be protected by a firewall or have the services disabled. For a Cisco router, this can be accomplished by using these global configuration commands.

no service udp-small-servers
no service tcp-small-servers

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps1018/products_tech_note09186a008017690e.shtml

QUESTION NO: 59

The security team at Testking Inc., is looking for the command that lets you view any configured CA certificates?

- A. `crypto key generate rsa`
- B. `show crypto key mypubkey rsa`
- C. `show crypto key pubkey-chain rsa`
- D. `show crypto ca certificates`

Answer: D**show crypto ca certificates**

To view information about your certificate, the CA's certificate, and any RA certificates, use the **show crypto ca certificates EXEC** command.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1828/products_command_summary_chapter09186a00800eeaf4.html#5347

QUESTION NO: 60

John and Kathy are the security administrators at Testking Inc. with one job left for the day. They have to select the three RADIUS servers supported by the Cisco IOS Firewall authentication proxy. Which three are the correct answers? (Choose three)

- A. Oracle
- B. DB2
- C. Cisco Secure ACS for Windows NT/2000
- D. Cisco Secure ACS for UNIX
- E. Lucent
- F. TACACS+

Answer: C D E**Explanation:**

The supported AAA servers are CiscoSecure ACS 2.3 for Windows NT, CiscoSecure ACS 2.3 for UNIX, TACACS+ server (vF4.02.alpha), Ascend RADIUS server - radius-980618 (required avpair patch), and Livingston (now Lucent), RADIUS server (v1.16).

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1830/products_feature_guide_chapter09186a00800a17ec.html

QUESTION NO: 61

James the security administrator for Testking Inc. has to know which has algorithms is used to authenticate packet data before he can go any further. Which algorithm is used to authenticate packet data?

- A. MD5 and SHA
- B. DES and CBC
- C. RSA and SHA
- D. DH and RSA

Answer: A

Explanation:

- MD5 (HMAC variant)—MD5 (Message Digest 5) is a hash algorithm used to authenticate packet data. HMAC is a variant which provides an additional level of hashing.
- SHA (HMAC variant)—SHA (Secure Hash Algorithm) is a hash algorithm used to authenticate packet data. HMAC is a variant which provides an additional level of hashing.

Reference:

http://www.cisco.com/en/US/products/sw/secursw/ps2120/products_user_guide_chapter09186a0080089917.html

QUESTION NO: 62

Kathy the administrator for Testking Inc. needs to type the command that enables the AAA access control system in the global configuration.

Answer: aaa new-model

Explanation:

To enable the AAA access control model, use the **aaa new-model** global configuration command.

Reference:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1826/products_command_summary_chapter09186a00800d9c0d.html

QUESTION NO: 63

The security team at Testking Inc. was asked the question, what attack is most often used in social engineering. They all answered this wrong. What is the correct answer?

- A. Session fragment

- B. Unauthorized access
- C. Data manipulation
- D. Malicious applets

Answer: B

Explanation:

Social engineering is when someone attempts to manipulate others to access information or access without authorization. Social engineering has many levels, but they all have the same goal of gaining unauthorized information or access.

QUESTION NO: 64

Jason the security administrator Testking Inc. wants to know by default, how long does a router wait before terminating an unattended line connection?

- A. 5 minutes
- B. 10 minutes
- C. 20 minutes
- D. 30 minutes

Answer: B

Explanation: In the page 76 of the MCNS book you see the right data is 10 minutes.

QUESTION NO: 65

John the manager of the I.T. Department at Testking Inc. wants to know, what is the purpose of the ip host global configuration command.

- A. Associates an IP address.
- B. Removes name-to-address mapping.
- C. Binds eight addresses to a hostname.
- D. Defines a static host name-to-address mapping in the host cache.

Answer: D

Explanation:

To define a static host name-to-address mapping in the host cache, use the **ip host** command in global configuration mode. To remove the host name-to-address mapping, use the **no** form of this command.

Reference:

http://www.cisco.com/univercd/cc/td/doc/product/software/ios123/123cgcr/ipras_r/ip1_i1g.htm#1081846

QUESTION NO: 66

Paul the security administrator at Testking Inc. must choose three major tasks that must be completed in order to support CA for Cisco routers in a site-to-site configuration. (Choose three)

- A. Configure an authentication proxy.
- B. Configure a CA server.
- C. Configure IKE.
- D. Test and verify IPsec.
- E. Test and verify the RADIUS server.
- F. Configure CA support.

Answer: C D F

Explanation:

Task 1: Prepare for IPsec

Task 2: Configure CA support

Task 3: Configure IKE for IPsec

Task 4: Configure IPsec

Task 5: Verify VPN configuration – Verify IPsec

Reference: Managing Cisco Network Security (Cisco Press) page 646

QUESTION NO: 67

What is the predefined policy in Management Center for VPN?

- A. 3DES, SHA pre-shared key, Diffie Hellman Group 2, life-time 86400 sec
- B. 3DES, SHA dynamic pre-share key, Diffie-Hellman Group 2, life-time 86400 sec
- C. DES, SHA, pre-shared key, Diffie-Hellman Group 1, life time 43200 sec
- D. 3DES, MD5 pre-shared key, Diffie Hellman Group 2, life time 86400 sec

Answer: B

QUESTION NO: 68

If no valid authentication entry exists in the authentication how does the proxy respond to HTTP?

- A. prompting the user for user name
- B. prompting the user for password
- C. prompting the user for user and password
- D. sending an alert to the Cisco Secure ACS server

Answer: C

Cisco Self-Study CCSP SECUR page 257

http://www.cisco.com/univercd/cc/td/doc/product/software/ios121/121cgcr/secur_c/scprt3/scd_authp.htm

QUESTION NO: 69

Which command applies an access list to a router interface?

- A. ip access-group
- B. ip access-list
- C. ip access-class
- D. apply access-list

Answer: A

Cisco Self-Study CCSP SECUR page 210

QUESTION NO: 70

Which ESP mode is used when final destination of compiled data is a VPN gateway?

- A. tunnel mode
- B. transparent mode
- C. encrypted mode
- D. secure mode

Answer: A

Cisco Self-Study CCSP SECUR page 313

QUESTION NO: 71

Select two main components of Eazy VPN feature.

- A. VPN CA
- B. VPN Server
- C. VPN Remote
- D. VPN Redirector
- E. VPN Access
- F. VPN Tacacs+ Server

Answer: B, C

Cisco Self-Study CCSP SECUR page 363

QUESTION NO: 72

Which three statements about Cisco Secure ACS are true? (Choose 3)

- A. NAS can access multiple Cisco Secure ACS for Windows Server
- B. Cisco Secure ACS for Window server can only log onto external server
- C. The Cisco Secure ACS for Windows server support only TACACS
- D. Database replication is supported by Cisco Secure ACS for Windows
- E. The server used for authorization and authentication on a Cisco Secure ACS for Windows server is called CSAdmin
- F. Cisco Secure ACS for Windows server use CSDBSync for manage user and group account.

Answer: A, B, D

A True

B.True

C.False, it work with TACACS and Radius Server

D. True, Database replication is supported by Cisco Secure ACS for Windows

E. False because CSAAuth provides authentication and authorization services

F..False, CSDBSyns provides synchronization of the Cisco Secure user database with an external RDBMS application

QUESTION NO: 73

What is the aggressive mode of CBAC in Cisco IOS firewall ?

- A. Delete all half-open session
- B. Re-initiate half open session
- C. Complete all half open sessions, make the full open session
- D. Delete half-open session as required to accommodate new connection requests

Answer: D

QUESTION NO: 74

What is the Cisco IOS command to disable the direct broadcast?

- A. no broadcast
- B. no ip broadcast
- C. no ip direct-broadcast
- D. disable ip broadcast
- E. ip prodcast disable

Answer: C

QUESTION NO: 75

What is the Cisco IOS command to disable finger service?

- A. no finger
- B. no finger service
- C. disable finger
- D. no service finger
- E. finger disable

Answer: D

QUESTION NO: 76

What trigger the authentication proxy or the Cisco firewall?

- A. user initiate inbound interface
- B. user logon through firewall
- C. user initiate an FTP session through the firewall
- D. user initiate HTTP session through the firewall

Answer:D

http://www.cisco.com/univercd/cc/td/doc/product/software/ios121/121cgr/secur_c/scprt3/scd_authp.htm

QUESTION NO: 77

Which three features of Cisco firewall? (Choose three)

- A. PIX firewall
- B. authentication proxy
- C. flash memory
- D. stateful failover
- E. CBAC
- F. IDS

Answer: B, E, F

QUESTION NO: 78

What does CBAC do?

- A. Create temporary opening in the firewall's ACLs to allow return traffic and additional data connections for permissible sessions.
- B. Nothing.

Answer: A

QUESTION NO: 79

What is the purpose of re-import function of management center for VPN router?

- A. re-import device configuration from different routers
- B. delete and import another copy of router configuration
- C. re-import router configure that changed the command line
- D. re-attempt import of router after a failed initial import

Answer: B

http://www.cisco.com/en/US/products/sw/cscowork/ps3992/products_user_guide_chapter09186a0080177d5f.html

QUESTION NO: 80

What IOS enables turbo access list?

- A. turbo acl
- B. tast ip acls
- C. acl turbo
- D. access-list compiled

Answer: D

http://www.cisco.com/en/US/products/sw/iosswrel/ps1834/products_feature_guide09186a0080080374.html#1019763

QUESTION NO: 82

What services are common in AH and ESP?

- A. confidentiality, connectionless integrity and anti-replay service
- B. data origin authentication, confidentiality and anti-replay service
- C. connectionless integrity data origin authentication and anti-replay service
- D. confidentiality, connectionless integrity and data origin authentication

Answer: B

Cisco Self-Study CCSP SECUR page 314-315

QUESTION NO: 83

Which protocol is used by Cisco IOS Encryption to secure exchange encryption keys for IPSEC?

- A. DH
- B. DES
- C. Digital Signature Standard
- D. ESP

Answer: D

Cisco Self-Study CCSP SECUR page 314

This is a trick question because it is asking what protocol not what encryption algorithm. Therefore the correct answer choice shall be ESP.

QUESTION NO: 84

Which IOS command sets the timeout for router terminal line?

- A. exec-timeout minute [seconds]
- B. line-timeout minute [seconds]
- C. timeout console minute [seconds]
- D. exec-time minutes [seconds]

Answer: A

http://www.cisco.com/warp/public/793/access_dial/comm_server.html

QUESTION NO: 85

What statement best describe a digital certificate?

- A. IT is a signed by CA
- B. IT is a public key infrastructure symmetrical key
- C. It is used by IPSEC to encrypt a client session
- D. It is a CA's encryption policy

Answer: A

Cisco Self-Study CCSP SECUR page 344

Both routers exchange digital certificates that have been signed by CA

QUESTION NO: 86

Which ESP mode is used to provide end to end protection of message between two hosts?

- A. transport mode

- B. encrypted mode
- C. ESP mode
- D. tunnel mode

Answer: A

<http://www.cisco.com/warp/public/707/24.html>

QUESTION NO: 87

What determine an IPSEC policy?

- A. to gather piece data you will need in later step to minimize mis-configuration
- B. to ensure the network work without encryption
- C. to establish IKE policy
- D. to ensure ACL are compatible with IKE

Answer: C

Cisco Self-Study CCSP SECUR page 314

The IPSEC policies are often referred to as the IKE phase 2 policies...

QUESTION NO: 88

An authentication attempt to a CSACS for Windows server failed yet no log entries are in the report. Why? (Choose two)

- A. User is not defined
- B. User belong to the wrong group
- C. CSAuth service is down on the Cisco Secure ACS Server
- D. password has expired
- E. user enter incorrect password
- F. Communication path between the NAS and Cisco Secure ACS server is down

Answer: C, F

QUESTION NO: 89

What determine an IPSEC policy?

- A. to gather piece data you will need in later step to minimize mis-configuration
- B. to ensure the network work without encryption
- C. to establish IKE policy
- D. to ensure ACL are compatible with IKE

Answer: C

Cisco Self-Study CCSP SECUR page 314

The IPSEC policies are often referred to as the IKE phase 2 policies...

QUESTION NO: 90

Which error message indicates that ISAKMP peers failed protection suite negotiation for ISAKMP?

- A. %Crypto-6-IKMP_SA_AUTH Can accept Quick Mode exchange form %15 if SA is authenticated
- B. %Crypto-6-IKMP_SA_OFFERED Remote peer% respond attribute [chars] offered
- C. %Crypto-6-IKMP_SA_NOT_OFFERED Remote peer% respond attribute [chars] not offered
- D. %Crypto-6-IKMP_SA_NO_AUTH Remote peer% respond attribute [chars] not offered

Answer: C

<http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122sup/122sems/semsvol1/emfcpad.htm>

QUESTION NO: 91

What are three possible state activities in Management Center for VPN?

- A. editable
- B. authored
- C. approved
- D. submitted
- E. edited
- F. logged

Answer: A, C, D

Cisco Self-Study CCSP SECUR page 392~393

Editable, Approved, and Submitted status

QUESTION NO: 92

When using a NAS, what is another name for packet mode?

- A. Interface
- B. Async
- C. PPP
- D. CTY

Answer: C

<http://www.cisco.com/warp/public/707/32.html>

QUESTION NO: 93

Which command prevents the perimeter router from divulging topology information by telling external hosts which subnets are not configured?

- A. no source-route
- B. no ip unreachable
- C. no ip route-cache
- D. no service udp-small-servers

Answer: B

QUESTION NO: 94

Which IOS command enables the processing of IP packets that include source routing information?

- A. no ip source-route
- B. no ip routing source
- C. no ip host routing
- D. disable ip source route

Answer: A

QUESTION NO: 95

Select the two systems that can accept alarms from a Cisco IOS Firewall IDS. Choose two.

- A. Cisco Director
- B. Cisco Host sensor
- C. Syslog server
- D. HP Openview
- E. Netview for AIX
- F. DHCP server

Answer: A, C

QUESTION NO: 96

Which three statements about Cisco Secure ACS are true? Choose two.

- A. NAS can access multiple Cisco Secure ACS for Windows server.
- B. Cisco Secure ACS for Windows servers can only log onto external servers.
- C. The Cisco Secure ACS for Windows server supports only TACACS+.
- D. Database replication is supported by the Cisco secure ACS fro Windows servers.
- E. The service used for authentication and authorization on a Cisco.
- F. The Cisco Secure ACS for Windows server uses the CSDBsynch service to manage the user and group accounts.

Answer: A, D

QUESTION NO: 97

Which error message indicated that ISAKMP peers failed protection suit negotiation for ISAKMP?

- A. %CRYPTO-IKMP_SA__AUTH: Can accept Quick Mode exchange form % 15i if SA is authenticated!
- B. %CRYPTO-6-IKMP_SA__OFFERED: Remote peer % 15i responded with attribute [chars] offered and changed
- C. %CRYPTO-6-IKMP_SA_NOT__OFFERED: Remote peer % 15i responded with attribute [chars] not offered or changed
- D. %CRYPTO-6-IKMP_SA__NOT_AUTH: Cannot accept Quick Mode exchange from % 15i if SA is not authenticated!

Answer:

QUESTION NO: 98

Choose the three actions that the IOS Firewall IDS router may perform when a packet, or a number of packets in a session, match a signature. Choose three.

- A. forward packet to the Cisco Ids Host Sensor for further analysis
- B. send an alarm to the Ciso IDS Diretor or Syslog server
- C. send an alarm to Cisco Secure ACS
- D. set the packets reset flag and forward the packet through
- E. drop the packet immediately
- F. return the packet to the sender

Answer: B, D, E

QUESTION NO: 99

You should pay particular attention to detail when entering peer RSA public keys. Why?

- A. Public keys are used to create the private keys.
- B. Mistakes made when entering the keys will cause them not to work.
- C. Change cannot be made after the keys are entered.
- D. Changes are complex to make after the keys are entered.

Answer: B

QUESTION NO: 100

Exhibit:

```
TestKingRouter(config)#aaa account network wait-start radius
```

Given the configuration statement in the exhibit, which three statements are true? Choose three.

- A. The accounting records are stored on TACACS+ server.
- B. Stop-accounting record for network service requests are sent to TACACS+ server.
- C. The accounting record are stored on a RADIUS server
- D. Start-accounting records for network service requests are sent to the local database.
- E. Stop-accounting record for network service requests are sent to the RADIUS server.
- F. The requested service cannot start until the acknowledgment has been received from the RADIUS server.

Answer:

QUESTION NO: 101

What must exist before the Cisco VPN Client can begin IKE phase one communications?

- A. IPSec traffic
- B. interesting traffic
- C. bypass mode traffic
- D. Cisco Secure ACS authentication

Answer:

QUESTION NO: 102

What is the predefined policy in the Management Center for VPN Routers?

- A. 3DES, SHA, pre-shared key, Diffie-Helman group #2 (1024 bit), lifetime 86400
- B. DES, SHA, dynamic pre-shared key, Diffie-Helman group #2 (1024 bit), lifetime 86400
- C. 3DES, Md5, CA enrollment, Diffie-Helman group #5 (2048 bit), lifetime 86400
- D. DES, SHA, pre-shared key, Diffie-Helman group #1 (786 bit), lifetime 43200
- E. 3DES, SHA, CA enrollment, Diffie-Helman group #2 (1024 bit), lifetime 86400

Answer:

QUESTION NO: 103

Where are access profiles stored with the authentication proxy features of the Cisco IOS Firewall?

- A. PIX Firewall
- B. Cisco router
- C. Cisco VPN Concentrator
- D. Cisco Secure ACS authentication server

Answer:

QUESTION NO: 104

Select the two main components that make up the Cisco Easy VPN feature set. Choose two.

- A. Easy VPN CA
- B. Easy VPN Server
- C. Easy VPN Remote
- D. Easy VPN RADIUS Server
- E. Easy VPN Access
- F. Easy VPN TACACS+ Server

Answer:

QUESTION NO: 105

Select two IPSec attributes that are not supported by Cisco Easy VPN. Choose two.

- A. manual keys
- B. tunnel mode
- C. DH 2

- D. PFS
- E. RSA digital signatures
- F. pre-shared keys

Answer:

QUESTION NO: 106

What triggers the authentication proxy on the Cisco IOS Firewall?

- A. user initiates inbound interface
- B. user initiates login through the firewall
- C. user initiates an FTP session through the firewall
- D. user initiates an HTTP session through the firewall

Answer:

Section B

QUESTION NO: 1

What command configures the amount of time CBAC will wait for a TCP session to become established before dropping the connection in the state table?

- A. ip inspect global syn-establish (seconds)
- B. ip inspect tcp global syn-time (seconds)
- C. ip inspect global tcp syn (seconds)
- D. ip inspect tcp synwait-time (seconds)

Answer: D

Explanation:

Use the IOS Firewall global configuration mode command `ip inspect tcp synwait-time (seconds)` command to set the CBAC timeout value for TCP session establishment. The default is 30 seconds.

QUESTION NO: 2

How do you enable the Nagle algorithm on an IOS router?

- A. ip nagle
- B. service nagle
- C. enable service nagle
- D. enable ip nagle

Answer: B

Explanation:

Use the global configuration mode command `service nagle` to enable the TCP congestion Nagle algorithm. The Nagle algorithm attempts to bunch traffic into fewer TCP packets, thus saving on bandwidth. This command is disabled by default.

QUESTION NO: 3

What is the router IOS command to clear all IPSEC SA's?

- A. clear crypto ipsec sa
- B. clear crypto ipsec sa all
- C. clear crypto sa
- D. clear crypto ipsec sa *

Answer: C

Explanation:

Clear all IPSEC Security Associations on a router with the clear crypto sa command.

QUESTION NO: 4

What OSI layers can CBAC filter on? Select all that apply.

- A. layer 4
- B. layer 3
- C. layer 2
- D. layer 7

Answer: A, B, D

Explanation:

Access lists can filter traffic based on layer 3 and layer 4 information, while CBAC can filter traffic based on layer 3, 4, and 7 (application layer) information.

QUESTION NO: 5

How much disk space is required to install AAA CSACS 3.0 for Windows?

- A. 900mb
- B. 100mb
- C. 250mb
- D. 500mb

Answer: C

Explanation:

Installation of CSACS 3.0 on a Windows server will need at least 250Mb of disk space for installation, more if the user database will be stored on the machine.

QUESTION NO: 6

What are the ACL number ranges for IP standard ACL's? Select all that apply.

- A. 1-99
- B. 100-199
- C. 1300-1999
- D. 800-1299

Answer: A, C

Explanation:

IP standard access lists can be numbered from 1-99 or from the expanded range of 1300-1999.

QUESTION NO: 7

Which of the following correctly applies ACL 101 inbound on an interface?

- A. ip access-class 101 inbound
- B. ip access-group 101 in
- C. ip access-list 101 in
- D. ip access-range 101 inbound
- E. ip access-group 101 inbound
- F. ip access-list 101 inbound
- G. ip access-class 101 in
- H. ip access-range 101 in

Answer: B

Explanation:

After creating an access list, you must apply it to an interface with the access-group command in interface configuration mode, and specify the direction to monitor traffic with the in or out keyword.

QUESTION NO: 8

Which of the following is NOT supported by CSACS 3.0?

- A. Radius/Tacacs+ secret keys
- B. installation on Windows NT
- C. SSL
- D. HTTP

Answer: C

Explanation:

You cannot use SSL to administratively connect to the CSACS AAA server in version 3.0, but you can in 3.1 and later.

QUESTION NO: 9

Which of the following router commands will prevent a router from giving an attacker a valid IP address via DHCP?

- A. no tcp-dhcp-servers
- B. no service dhcp
- C. no ip dhcp servers
- D. no dhcp server

Answer: B

Explanation:

The IOS command `no service dhcp` will prevent the router from responding to DHCP requests on all interfaces. You cannot disable only certain interfaces, if you need to allow this service, apply proper ACL's.

QUESTION NO: 10

By default, where does the IOS Firewall IDS engine send alarms to?

- A. CBAC
- B. Director platform
- C. CSACS
- D. DMZ
- E. syslog server

Answer: E

Explanation:

If an IDS info or attack signature is configured to generate an alarm, if no notification method is specified with the `ip audit notify` command, by default the IDS engine will send it to the syslog server.

QUESTION NO: 11

Which of the following configurations restricts telnet access to a router by requiring the password cisco?

- A. `line vty 0 4`
`login cisco`
- B. `line vty 0 4`
`set password cisco`
`login`
- C. `line vty 0 4`
`password cisco`
`login`
- D. `line vty 0 4`
`set login`
`set password cisco`

Answer: C

Explanation:

To restrict telnet access to a Cisco router, you must configure the virtual terminal lines (VTY) that telnet uses. Require a login with the `login` line configuration command (enabled on vty lines by default). You must also set a password with the `password (password)` line configuration command, or remote user telnet connections will be refused, informing them that a login is required, but no password is set.

QUESTION NO: 12**What is the IOS Firewall command to send IDS alarms to a syslog server?**

- A. ip audit notify syslog
- B. ip audit notify log
- C. ip audit notify logging
- D. ip audit specify logging
- E. ip audit specify syslog
- F. ip audit specify log

Answer: B**Explanation:**

The IOS Firewall IDS engine can send alarms to a Director platform, or a syslog server. Use the command ip audit notify log to make the IDS engine send alarms to a syslog server. (You must also define the syslog server with the logging x.x.x.x command).

QUESTION NO: 13**What IOS router command is entered to view all current IKE SA's?**

- A. show ipsec
- B. show crypto isakmp sa
- C. show isakmp
- D. show crypto ipsec sa
- E. show ipsec sa
- F. show isakmp sa

Answer: B**Explanation:**

View the status of current IKE Security Associations on a router with the show crypto isakmp sa command. (ISAKMP is the same process as IKE)

QUESTION NO: 14**What are the two components of Cisco Easy VPN (EzVPN)?**

- A. External
- B. Server
- C. Remote
- D. Master

Answer: B, C**Explanation:**

Cisco EzVPN consists of two components: Easy VPN Server, and Easy VPN Remote. The EzVPN Server is the Head-End VPN device and can push a configuration to the EzVPN Remote device.

QUESTION NO: 15

Which of the following commands correctly sets the IPSEC SA lifetime value to 30 minutes?

- A. `crypto ipsec sa lifetime 30`
- B. `crypto ipsec security-association lifetime 1800`
- C. `crypto ipsec sa lifetime 1800`
- D. `crypto ipsec security-association lifetime 30`

Answer: B

Explanation:

The IPSEC SA lifetime value can be configured between 120 and 86,400 seconds with the command: `crypto ipsec security-association lifetime (seconds)`. You can also set the IPSEC SA lifetime value in kilobytes transmitted with the `crypto ipsec security-association lifetime kilobytes (kilobytes)` command. Whenever either value (seconds elapsed or kilobytes transmitted) is reached, the Security Associations will need to be renegotiated. These commands can be entered in global configuration mode, thus applying them to all SA's, or can be configured in crypto map configuration mode. Lifetime values entered in crypto map configuration will override the global configuration values.

QUESTION NO: 16

Which of the following correctly configures authentication and encryption for an IPSEC transform set?

- A. `crypto ipsec transform-set secure ah-hmac-md5 esp-des`
- B. `crypto ipsec transform-set secure ah-md5 esp-3des`
- C. `crypto ipsec transform-set secure esp-sha-hmac esp-3des`
- D. `crypto ipsec transform-set secure ah-md5 esp-des-hmac`

Answer: C

Explanation:

This transform set uses esp-3des for encryption, and uses esp-sha-hmac for authentication. The transform set in answer D is close, but the authentication transform would need to read like this: `ah-md5-hmac`.

QUESTION NO: 17

By default how long will CBAC monitor an idle TCP session in the state table before deleting the entry?

- A. 60 minutes
- B. 5 minutes
- C. 30 seconds
- D. 20 minutes

Answer: A

Explanation:

The default CBAC global TCP idle session timeout value is 3600 seconds (60 minutes). This can be overridden for specific protocols.

QUESTION NO: 18

What are the available authentication options when configuring an IKE SA? Select all that apply.

- A. pre-shared keys
- B. SHA-1
- C. RSA signatures
- D. RSA encrypted nonces
- E. MD5

Answer: A, C, D

Explanation:

IKE SA peer authentication can be configured in 1 of 3 ways: pre-shared keys, RSA Signatures, or RSA encrypted nonces. Pre-shared keys are used on small networks where entering the key at each peer doesn't encounter scalability issues. On larger networks where scalability is an issue, you can use RSA signatures (the default for IKE policy configuration), which use a Certificate Authority (CA) to allow peer authentication. You can also use RSA encrypted nonces which allows scalability without being forced to use a CA (public keys must still be exchanged).

QUESTION NO: 19

Which of the following commands encrypts all router passwords?

- A. service config-passwords
- B. service running-encryption
- C. service password-encryption
- D. service encrypt-passwords

Answer: C

Explanation:

Using the global configuration command service password-encryption, causes all passwords to be encrypted so they are unreadable when the router configuration is viewed.

QUESTION NO: 20**What type of IDS attack is spread out over multiple packets?**

- A. atomic
- B. arbitrary
- C. aggregate
- D. compound

Answer: D**Explanation:**

When an IDS signature attack uses multiple packets, it's called a compound attack. For the IOS Firewall to detect this type of attack, it must keep suspicious packets in memory to follow up on later packets of the session to see if it is an actual attack.

QUESTION NO: 21**How do you configure the CBAC global UDP idle session timeout?**

- A. ip inspect udp-session-timeout (seconds)
- B. ip inspect udp-idle (seconds)
- C. ip inspect udp-timeout (seconds)
- D. ip inspect udp idle-time (seconds)

Answer: D**Explanation:**

Determine the global UDP idle session state table timeout value with the ip inspect udp idle-time (seconds) command. This global value (along with the global tcp idle timeout) can be overridden on a per-protocol basis.

QUESTION NO: 22**Which of the following is NOT an IOS Firewall default IKE policy parameter?**

- A. MD5
- B. DH group 1
- C. DES
- D. Lifetime 86,400 seconds
- E. RSA-Signatures

Answer: A**Explanation:**

Answers A through E are the default IOS Firewall router IKE policy values, except for answer B, MD5. (The default IKE hash algorithm used is SHA-1).

QUESTION NO: 23

Which of the following configuration register values will allow a Cisco router to go immediately into ROM mode at any time during a routers operation?

- A. 0x2101
- B. 0x2002
- C. 0x2210
- D. 0x2102

Answer: B

Explanation:

If bit 8 of the configuration register is off (0x2002) the router can be sent directly into ROM mode at any time if the break key is issued, losing the running configuration. If bit 8 is turned on (0x2102), the break key can only be issued within the first 60 seconds of router boot up.

QUESTION NO: 24

Which of the following commands correctly sets the IOS Firewall IDS spam threshold?

- A. ip audit smtp spam 500
- B. ip audit smtp spam 500 notify
- C. ip audit smtp name spam 500
- D. ip audit ids spam 500

Answer: A

Explanation:

Set the threshold at which a spam alarm is triggered for the number of recipients in an email with the ip audit smtp spam (number) command.

QUESTION NO: 25

Which of the following router commands correctly sets the location (URL) of a CA server into the router configuration?

- A. Router (crypto-set)#enrollment mode (URL)
- B. Router (crypto-ca)#enrollment mode (URL)
- C. Router (ca-scep)#enrollment url (URL)
- D. Router (ca-identity)#enrollment url (URL)

Answer: D

Explanation:

Specify the location of the CA server with the ca-identity configuration mode command enrollment url (URL).

QUESTION NO: 26

Which of the following is NOT a component of AAA?

- A. Authentication
- B. Access
- C. Administration
- D. Authorization
- E. Accounting
- F. Authority

Answer: B, C, F

Explanation:

The three components of AAA are Authentication, Authorization, and Accounting.

QUESTION NO: 27

Which of the following crypto map configuration commands are needed when manually entering keys instead of using IKE? Select all that apply.

- A. set session-key inbound ah
- B. set manual-key inbound ah
- C. set session-key outbound esp
- D. set manual-key outbound esp

Answer: A, C

Explanation:

If you don't use IKE and instead enter the keys manually, you must enter four keys at each peer in crypto map configuration. One key is for inbound AH, one for inbound ESP, one for outbound AH, and one for outbound ESP. The inbound key of one peer must match the outbound key of the other peer.

QUESTION NO: 28

Which of the following correctly sets the IOS Firewall authentication-proxy idle timer to 20 minutes?

- A. ip auth-proxy auth-cache 20
- B. ip auth-proxy auth-time 20
- C. ip auth-proxy auth-cache-time 20
- D. ip auth-proxy idle 20

E. ip auth-proxy idle timer 20

Answer: C

Explanation:

Use the global configuration mode command ip auth-proxy auth-cache-time (minutes) to determine the acceptable idle period for users authenticated through the IOS Firewall before they must re-authenticate.

QUESTION NO: 29

Which of the following commands can debug communications between an IOS router, and a CA server?

- A. debug crypto dss exchange
- B. debug crypto ca server
- C. debug crypto ca engine
- D. debug crypto pki messages

Answer: D

Explanation:

Monitor the communication between a router and a Certificate Authority (CA) server with the debug crypto pki messages command.

QUESTION NO: 30

How do you set the threshold of half-open sessions CBAC will allow per minute before deleting them?

- A. ip inspect one-minute incomplete (number)
- B. ip inspect one-minute (number)
- C. ip inspect one-minute high (number)
- D. ip inspect one-minute high incomplete (number)
- E. ip inspect max-incomplete minute high (number)

Answer: C

Explanation:

This command will set the number of new, half-open connections per minute CBAC will allow before deleting them. The default is 500 per minute.

QUESTION NO: 31

Which of the following configures an authentication proxy rule for the IOS Firewall?

- A. ip inspect-proxy name proxynome http

- B. ip auth-proxy name proxyname http
- C. ip auth-rule proxyname http
- D. ip proxy-name proxyname http

Answer: B

Explanation:

Create an authentication proxy rule with the global configuration mode command ip auth-proxy name (name) http. Apply the proxy rule to an interface to force users to authenticate through the firewall.

QUESTION NO: 32

Which of the following are commands that can be entered on an IOS Firewall router to debug communications with a AAA server? Select all that apply.

- A. debug aaa all
- B. debug ip aaa
- C. debug aaa accounting
- D. debug tacacs

Answer: C, D

Explanation:

Use the debug tacacs command to just debug tacacs communication, or use a general command like debug aaa accounting for debugging tacacs and radius.

QUESTION NO: 33

Which of the following Cisco IOS router commands will properly configure pre-shared keys for IKE authentication?

- A. Router(config-crypto)#authentication pre-share
- B. Router(config-policy)#authentication pre-share
- C. Router(config-isakmp)#authentication pre-share
- D. Router(config-ike)#authentication pre-share

Answer: C

Explanation:

Configure IKE policy parameters in isakmp configuration mode (Router(config-isakmp)#).

QUESTION NO: 34

What directory do you place the three Cisco VPN client files (oem.ini, vpnclient.ini, .pcf) into?

- A. setup.exe
- B. syscon.exe
- C. startup.exe
- D. vpnclient.exe

Answer: A

Explanation:

The Cisco VPN software client supports the pre-configuration of VPN connections by placing three files (oem.ini, vpnclient.ini, .pcf) into the same directory as the VPN client setup.exe.

QUESTION NO: 35

Which of the following router commands will allow all users to be authenticated, even if the TACACS+ server fails?

- A. aaa authentication list1 tacacs+ any
- B. aaa authentication list1 tacacs+ none
- C. aaa authentication list1 tacacs+ allow
- D. aaa authentication list1 tacacs+ disabled

Answer: B

Explanation:

The none keyword at the end of this aaa command allows the user to be authenticated by not requiring any form of authentication if the tacacs+ server is tried first, but did not respond.

QUESTION NO: 36

Which of the following can be an IP extended ACL? Select all that apply.

- A. ACL 3601
- B. ACL 99
- C. ACL 1401
- D. ACL 100
- E. ACL 2101

Answer: D, E

Explanation:

An IP extended ACL can be numbered within any of the following ranges: 100-199, 2000-2699.

QUESTION NO: 37

What EzVPN feature allows a Remote host to encrypt all data needing to go to the EzVPN Server, but sending all other traffic in clear text to its local ISP?

- A. Initial Contact
- B. DPD
- C. Split Tunneling
- D. Remote Administration

Answer: C

Explanation:

The Remote EzVPN client can be configured to use Split Tunneling which allows a connection to the EzVPN server, and a connection to the local ISP. This allows all traffic not destined to the EzVPN server to go to the ISP, unencrypted. If Split Tunneling is not used, all traffic will go to the EzVPN server encrypted, then rerouted out to the Internet to its final destination.

QUESTION NO: 38

Which of the following are encryption algorithms? Select all that apply.

- A. MD5
- B. AES
- C. SHA-1
- D. DES
- E. IKE
- F. IPSEC

Answer: B, D

Explanation:

IKE and IPSEC are suites of protocols. MD5 and SHA-1 are hash protocols. DES, 3DES, and AES are encryption protocols.

QUESTION NO: 39

What type of crypto map would you need to create if you are using IKE for IPSEC?

- A. crypto map map1 100 ipsec-manual
- B. crypto map map1 100 ike-dynamic
- C. crypto map map1 100 ipsec-isakmp
- D. crypto map map1 100 isakmp-key
- E. crypto map map1 100 dynamic

Answer: C

Explanation:

When creating a crypto map, specify that the map will use IKE with the ipsec-isakmp keyword. If you are not using IKE, and are instead using manual keys, enter the ipsec-manual crypto map keyword.

QUESTION NO: 40

Which of the following Cisco IOS Firewall router commands will generate separate key pairs for RSA signatures and RSA encrypted nonces?

- A. crypto rsa generate special-keys
- B. crypto rsa generate association-keys
- C. crypto key generate rsa double-keys
- D. crypto key generate rsa usage-keys

Answer: D

Explanation:

When generating RSA keys, you can generate one pair (crypto key generate rsa) or two pairs (crypto key generate rsa usage-keys). If you generate one pair, it will be used for both RSA signatures, and RSA encrypted nonces. If you generate two pairs, each will have its own key pair.

QUESTION NO: 41

Where are debugging messages sent to by default on a router?

- A. console line
- B. internal buffers
- C. vty lines
- D. syslog server

Answer: A

Explanation:

By default, output from a debug command will only be sent to the console connection. Use the no logging console command to disable it.

QUESTION NO: 42

What Cisco VPN software client file has all the parameters of a VPN connection?

- A. .pst
- B. .pgs
- C. .pcf
- D. .pdn

Answer: C

Explanation:

A Profile Configuration File (.pcf) has all the parameters for a vpn connection. Multiple connections can be created and you can configure parameters such as Microsoft logon credentials, NT domain, Diffie-Hellman group, etc.

QUESTION NO: 43

Which of the following cannot be configured on a router unless the IOS Firewall feature set is installed? Select all that apply.

- A. PAM
- B. Authentication Proxy
- C. IDS
- D. CBAC

Answer: A, B, C, D

Explanation:

CBAC, PAM, IDS, Authentication Proxy are the four main components of the Cisco IOS Firewall and cannot be configured until the IOS Firewall feature set is installed on the router.

QUESTION NO: 44

By default, how many message recipients must an email have for the IOS Firewall to consider it a spam attack?

- A. 250
- B. 500
- C. 100
- D. 25

Answer: A

Explanation:

By default, the Cisco IOS Firewall will fire an alarm for a spam attack if an email contains 250 or more recipients.

QUESTION NO: 45

What is the IOS version that first introduced EzVPN server?

- A. 12.2(6)T
- B. 12.3(1)T
- C. 12.2(5)T
- D. 12.2(8)T

Answer: D

Explanation:

Cisco 1700, 7100, and 7200 routers can act as an EzVPN server starting in IOS version 12.2(8)T.

QUESTION NO: 46

What are the two Diffie-Hellman (DH) groups that the IOS EzVPN server supports?

- A. Group 2
- B. Group 1
- C. Group 3
- D. Group 4
- E. Group 5

Answer: A, E

Explanation:

The Cisco IOS EzVPN Server only supports Diffie-Hellman Groups 2 (1024 bit) and 5 (1536 bit). Group 1 (768 bit) is not supported.

QUESTION NO: 47

What is the IOS Firewall IPSEC SA default lifetime value (in seconds)?

- A. 50,400
- B. 3,600
- C. 21,600
- D. 86,400

Answer: B

Explanation:

The default IPSEC SA lifetime value is set to 3600 seconds (1 hour). Do not confuse this IPSEC SA lifetime value with the ISAKMP (IKE) SA lifetime value which is set to 86,400 seconds (1 day) by default.

QUESTION NO: 48

Which of the following AAA security server protocols can the IOS Firewall support? Select all that apply.

- A. MD5
- B. RSA Signatures
- C. TACACS+
- D. RADIUS
- E. CA

Answer: C, D

Explanation:

The IOS Firewall can communicate with a AAA server running either RADIUS or TACACS+.

QUESTION NO: 49

What is the default mode TCP Intercept operates in?

- A. intercept
- B. aggressive
- C. 3-way
- D. responsive
- E. watch

Answer: A

Explanation:

TCP Intercept can be in either intercept mode or passive watch mode. In intercept mode, each TCP SYN packet will be intercepted and responded to on behalf of the server it is protecting. With passive watch mode, TCP Intercept monitors the connection to the server to make sure the connection becomes complete. If the server cannot complete the connection within a configurable time period, TCP Intercept will send a reset packet to the server, clearing up the server's resources.

QUESTION NO: 50

Which of the following can ESP IPSEC transforms provide? Select all that apply.

- A. authentication
- B. key generation
- C. split tunneling
- D. encryption

Answer: A, D

Explanation:

AH is not needed in transforms to provide authentication, as ESP can provide encryption and authentication. Use this configuration if you are having conflicts with AH and NAT.

QUESTION NO: 51

Which of the following access lists is CBAC unable to alter? Select all that apply.

- A. ACL 1335
- B. ACL 35

- C. ACL 135
- D. ACL 2335

Answer: A, B

Explanation:

CBAC does not alter standard IP access lists. Only an extended access list can be used to get the benefit of CBAC traffic filtering.

QUESTION NO: 52

Which of the following commands can be used to verify your IOS Firewall IDS configuration? Select all that apply.

- A. show ip audit attack
- B. show ip audit statistics
- C. show ip audit all
- D. show ip audit tcp
- E. show ip audit info

Answer: B, C

Explanation:

To verify your IOS Firewall IDS configuration there are six options with the show ip audit command: all, configuration, interfaces, name, sessions, and statistics.

QUESTION NO: 53

What is the range of the number of characters the IOS enable secret password can be?

- A. 1-20
- B. 1-25
- C. 4-24
- D. 4-30

Answer: B

Explanation:

An IOS enable secret password must be between 1 and 25 characters long. The first character cannot be a number.

QUESTION NO: 54

What is the maximum key size you can generate when using RSA Encrypted Nonces as your IKE authentication method?

- A. 256 bit

- B. 768 bit
- C. 2048 bit
- D. 1024 bit

Answer: C

Explanation:

When generating keys for IKE RSA Encrypted Nonces, you must specify key lengths at a minimum of 360 bits and a maximum of 2048 bits.

QUESTION NO: 55

Which of the following commands will alter the CBAC DNS timeout timer to 10 seconds?

- A. ip inspect dns-server-timeout 10
- B. ip inspect dns-server-timer 10
- C. ip inspect dns-timeout 10
- D. ip inspect dns-timer 10

Answer: C

Explanation:

To configure the time CBAC will keep a DNS session open in the state table, use the global configuration command ip inspect dns-timeout (seconds). The default is five seconds.

QUESTION NO: 56

Which of the following commands specifies that the IOS Firewall IDS engine drops packets and resets tcp connections for information signatures?

- A. ip audit name audit1 info attack drop reset
- B. ip audit name audit1 info action drop reset
- C. ip audit name audit1 info sig action drop reset
- D. ip audit name audit1 sig info drop reset

Answer: B

Explanation:

Specify the action the IOS Firewall IDS engine should take (reset, drop, alarm) for informational and attacks signatures with the ip audit name command.

QUESTION NO: 57

What is IP spoofing?

- A. altering the source ip address in packets

- B. sending large amounts of icmp packets to a broadcast address
- C. altering ip routing tables
- D. packet sniffing

Answer: A

Explanation:

An IP spoof is when an attacker changes the source IP address of network packets, usually in attempt to bypass access lists or to DOS the real IP source

QUESTION NO: 58

Which of the following can act as a Cisco EzVPN Remote client? Select all that apply.

- A. 1700 router
- B. 7200 router
- C. VPN Software Client
- D. 3002 VPN Hardware Client

Answer: A, C, D

Explanation:

The following devices can act as the Remote in Cisco EzVPN: 800, 900, and 1700 series routers, PIX 501 firewall, the 3002 Hardware Client, and the VPN software client.

QUESTION NO: 59

What operating systems can CSACS be installed on? Select all that apply.

- A. Windows 2000
- B. Unix
- C. Windows NT
- D. OS X
- E. Solaris

Answer: A, B, C

Explanation:

CSACS is AAA software that can be installed on Windows NT, Windows 2000, and Unix. However, CSACS 3.2 can only be installed on Windows 2000 (or you can purchase a standalone appliance module from Cisco running 3.2 CSACS).

QUESTION NO: 60

If CBAC is configured to inspect telnet traffic on an interface, how should outbound telnet traffic be configured in any ACL's?

- A. outbound telnet should be permitted in any acl's
- B. outbound telnet should be denied in any acl's
- C. telnet should not be referenced at all in the acl
- D. outbound telnet should be denied only if inbound telnet is allowed

Answer: A

Explanation:

ACL's need to allow the initial outbound traffic. If the traffic is not allowed outbound access, CBAC will not have a chance to monitor and restrict the return session traffic.

QUESTION NO: 61

By default, after how many half-open sessions need to be in the state table before CBAC will begin to delete the half-open sessions?

- A. 500
- B. 250
- C. 1000
- D. 2000
- E. 100
- F. 50

Answer: A

Explanation:

By default, CBAC will begin to delete half-open sessions when there are 500 in the state table. It will keep deleting half-open sessions until the minimum half-open sessions threshold is met (default is 400).

QUESTION NO: 62

What is the global IOS command that disables Cisco Discovery Protocol (CDP) completely?

- A. no cdp enable
- B. no cdp server
- C. no cdp process
- D. no cdp start
- E. no cdp run

Answer: E

Explanation:

Use the global configuration command no cdp run to disable CDP on all router interfaces. To disable CDP on an interface basis, go into interface configuration mode and enter no cdp enable.

QUESTION NO: 63**What are the protocol numbers for ESP and AH?**

- A. 84, 85
- B. 69, 70
- C. 50, 51
- D. 96, 97

Answer: C**Explanation:**

The two IPSEC protocols ESP (encryption and authentication), and AH (authentication) are protocol numbers 50, and 51, respectively.

QUESTION NO: 64**What is the EzVPN feature that allows a Remote host to re-establish a connection to a Server, if the Remote host is accidentally disconnected?**

- A. Mode Configuration
- B. DPD
- C. Split Tunneling
- D. Initial Contact

Answer: D**Explanation:**

Initial Contact is used by a host when first establishing a connection to the EzVPN Server, telling the Server to delete any previous SA's with the host. This is done because if a host is disconnected from the Server, and the Server is not aware of it, the host will not be able to reconnect with the Server unless the SA's are reset. Initial Contact makes sure the host can connect.

QUESTION NO: 65**Which of the following commands enables TCP Intercept?**

- A. tcp intercept enable
- B. ip tcp intercept enable
- C. ip tcp intercept enable list
- D. ip tcp intercept list

Answer: D**Explanation:**

To enable TCP Intercept define an access list for hosts you want to protect, then reference that list with the ip tcp intercept list (list) command.

QUESTION NO: 66

What is the minimum IOS version your NAS router must have in order to communicate with a AAA server such as CSACS 3.0 for Windows 2000?

- A. 12.3
- B. 11.1
- C. 11.5
- D. 12.0

Answer: B

Explanation:

To set your NAS router up to communicate with a AAA server, you must have at least IOS version 11.1.

QUESTION NO: 67

Which of the following commands correctly references access list 120 in a crypto map?

- A. Router(config-crypto-map)#match address 120
- B. Router(config-crypto-map)#set peer 120
- C. Router(config-crypto-map)#set list 120
- D. Router(config-crypto-map)#match list 120

Answer: A

Explanation:

After defining a crypto map, and entering into crypto map configuration, you must specify the hosts needing encryption by defining those hosts in an access list and referencing that list with the match address (acl) command.

QUESTION NO: 68

What must you change the configuration register value to, when you need to perform password recovery on a router?

- A. 0x2102
- B. 0x2142
- C. 0x2241
- D. 0x2410

Answer: B

Explanation:

Setting the configuration register value to 0x2142 will force the router upon a reboot, to boot the image from flash, but to ignore the startup configuration. This allows you to set an enable secret, then to copy the running configuration to the startup configuration, thus performing password recovery.

QUESTION NO: 69

Which of the following commands disables an IOS Firewall IDS signature from being scanned?

- A. ip audit ids attack signature (sig#) disable
- B. ip audit ids signature (sig#) disable
- C. ip audit attack signature (sig#) disable
- D. ip audit signature (sig#) disable

Answer: D**Explanation:**

Use the ip audit signature (signature number) disable command to stop the IOS Firewall from scanning traffic for that signature attack.

QUESTION NO: 70

Which of the following is NOT supported by Cisco EzVPN?

- A. SHA-1
- B. MD5
- C. ESP
- D. AH

Answer: D**Explanation:**

Authentication Header is not a supported IPSEC authentication protocol on Cisco EzVPN.

QUESTION NO: 71

Which of the following router commands enables the AAA process?

- A. aaa new-model
- B. aaa setup-dbase
- C. aaa config-login
- D. aaa server-sync

Answer: A

Explanation:

The router global configuration command `aaa new-model`, enables aaa (radius, tacacs+) configuration commands on the router, and disables tacacs and xtacacs.

QUESTION NO: 72

How many incomplete connections must a router have by default before TCP Intercept will start dropping incomplete connections?

- A. 500
- B. 1100
- C. 700
- D. 900
- E. 200

Answer: B**Explanation:**

Once the number of incomplete connections (TCP SYN) reaches 1100, TCP Intercept will start deleting incomplete sessions (oldest session first, by default). Configure the incomplete session threshold with the `ip tcp intercept max-incomplete high (number)` command.

QUESTION NO: 73

What is the RADIUS vendor-specific attribute number?

- A. 26
- B. 50
- C. 14
- D. 38

Answer: A**Explanation:**

The vendor-specific RADIUS attribute (attribute number 26) allows vendors to create their own extended RADIUS attributes. Cisco is vendor ID number 9.

QUESTION NO: 74

Which of the following is the default login URL for CSACS 3.0?

- A. `http://127.0.0.1:4002`
- B. `http://127.0.0.1:2002`
- C. `http://127.0.0.1:2502`
- D. `http://127.0.0.1:4502`

Answer: B

Explanation:

Use IP address 127.0.0.1 (local loopback) with port 2002 to access CSACS from the host CSACS is installed on. Substitute the local loopback with the IP address of the CSACS server to access the server remotely I.E. 192.168.10.10:2002.

QUESTION NO: 75

Which of the following router commands can monitor AAA RADIUS?

- A. show radius errors
- B. show radius statistics
- C. show ip aaa
- D. show radius monitoring

Answer: B

Explanation:

Use the router command show radius statistics to view general RADIUS statistics for authentication and accounting.

QUESTION NO: 76

Which of the following encryption protocols can the Cisco IOS Firewall support? Select all that apply.

- A. CAST
- B. Twofish
- C. DES
- D. 3DES
- E. AES

Answer: C, D, E

Explanation:

The Cisco IOS Firewall can support DES (56 bit), 3DES (168 bit), and AES (128, 192, 256 bit) encryption protocols for VPN tunnels.

QUESTION NO: 77

What is the bit length of the Diffie-Hellman group 1 algorithm?

- A. 768 bits
- B. 512 bytes
- C. 512 bits
- D. 768 bytes

Answer: A

Explanation:

The Diffie-Hellman protocol uses complex mathematical algorithms to generate a secret key over an insecure link such as the Internet. Only the public keys are exchanged, the secret key that is generated is never sent over the link. Diffie-Hellman group 1 uses 768 bit keys.

QUESTION NO: 78

Which of the following dynamically alters access lists?

- A. CBAC
- B. IPSEC
- C. Kerberos
- D. AAA

Answer: A

Explanation:

CBAC monitors traffic and dynamically alters access lists to allow specified return traffic. CBAC then dynamically closes the hole(s) in the access list(s) once the session is finished.

QUESTION NO: 79

What is the command to enable logging to all configured destinations (other than the console) on a router?

- A. logging facility
- B. logging enable
- C. logging on
- D. logging server
- E. logging messages
- F. logging enabled

Answer: C

Explanation:

Enable logging to destinations other than the console port, such as internal buffers, terminal monitor (telnet/vty line), or a syslog server with the logging on command.

QUESTION NO: 80

How many IDS signatures can the Cisco IOS Firewall scan for?

- A. 207
- B. 59
- C. 426

D. 12

Answer: B

Explanation:

The IDS component of the Cisco IOS Firewall can monitor 59 different IDS signature attacks.

Note 1:

Section A contains 106 questions.

Section B contains 80 questions.

The total number of questions is 186.

Each section starts with QUESTION NO :1. There are no missing questions.

Note 2 : Answers to the unanswered questions will be provided shortly. First customer, if any, faster than us in providing answers will receive credit for each answer provided.