

Exam: 350-024

Title : CCIE SP IP Telephony Qualification

Ver : 10-23-07

### **QUESTION 1:**

When troubleshooting an IOS Voice Gateway, what command will produce detailed information (codec, ERL, tx/rx packets, dial peers, etc) on currently active calls?

- A. show voice call active
- B. show call active voice
- C. show voice port
- D. show voice call

Answer: B

# **QUESTION 2:**

When troubleshooting a FailSafe problem in Unity, the first place you should look for detailed error messages is the:

- A. tempu.log
- B. System Log
- C. Application Log
- D. SDL Trace
- E. Status Monitor

Answer: C

## **QUESTION 3:**

In order to pass hook-flash on h.323 from FXS to FXO:

- A. connection plar must be configured on the voice-port (FXS)
- B. connection plar must be configured on the voice-port (FXS) and (FXO)
- C. connection trunk must be configured on the voice-port (FXS)
- D. connection trunk must be configured on the voice-port (FXS) and (FXO)
- E. None of the above

Answer: E

### **QUESTION 4:**

What type of signaling provides Dialed Number Information Service (DNIS) on a T1/E1?

- A. E&M
- B. Loop Start
- C. Ground start

#### D. All of the above

Answer: D

#### **QUESTION 5:**

When Direct Inward Dial is used on a POTS dial peer and an incoming POTS call enters the router: (multiple answer)

- A. The number that is dialing (ANI) automatically becomes the destination-pattern number for the IP destination.
- B. The number that is dialed (DNIS) automatically becomes the destination-pattern number for the IP destination.
- C. The number that is dialing (ANI) automatically becomes the destination-pattern number for the telephony destination.
- D. The number that is dialed (DNIS) automatically becomes the destination-pattern number for the telephony destination.
- E. The number that is dialed (DNIS) & the number that is dialing (ANI) automatically becomes the destination-pattern number for the IP & telephony destination.

Answer: B,D

#### **QUESTION 6:**

What does the term "MGCP backhaul" mean?

- A. Encapsulating ISDN Q.931 CDR records to a RADIUS server
- B. Translating ISDN Q.931 messaging into MGCP events to the MGCP Call Agent
- C. Transporting ISDN Q.921 messaging across IP to the MGCP Call Agent
- D. Transporting ISDN Q.931 messaging across IP to the MGCP Call Agent
- E. Transporting T1 CAS messaging across IP to the MGCP Call Agent

Answer: D

#### **QUESTION 7:**

What statement is an attribute of ISDN Non-Facility Associated Signaling (NFAS)?

- A. Single D-channel controls B-channels on the same T1 span, as well on other T1-spans.
- B. Single T1 span can be split into two "trunk groups", each with its own dedicated D-channel.
- C. Is available on both T1 and E1 PRIs.
- D. Enables the D-channel to transmit "data" information unrelated to any voice call, such as inter-switch status updates.

E. Applicable to voice calls on PRI only, but not to data PRI calls.

Answer: A

#### **QUESTION 8:**

The IOS GWs support ECMA QSIG. CM, in MGCP Call Agent mode, supports ISO QSIG. What implications does this have on an IP telephony network?

- A. None, the ISO standard is a superset of the ECMA standard.
- B. None, as long as the IOS GW remains in contact with the CM at all times.
- C. During MGCP GW Fallback, no calls to the attached QSIG PBX will work.
- D. During MGCP GW Fallback, basic calls to the attached QSIG PBX will work.
- E. During MGCP GW Fallback, all call functionality to the attached QSIG PBX will work.

Answer: B,D

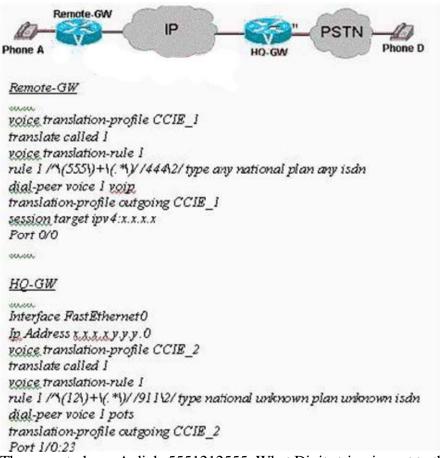
## **QUESTION 9:**

The terms "Wink start", "Delay start" and "Immediate start" are applicable to:

- A. Analog E&M Signaling
- B. T1 CAS E&M signaling
- C. E1 CAS E&M Signaling
- D. Analog DID Signaling
- E. All of the above

Answer: E

## **QUESTION 10:**



The user at phone A dials 5551212555. What Digit string is sent to the PSTN for termination assuming call routing is working properly through the IP Network? NOTE:

A. 5551212555

B. 4441212555

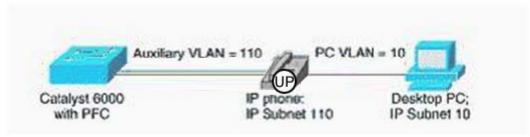
C. 555911911444

D. 5551444555

E. 5554442555

Answer: B

### **QUESTION 11:**



The Catalyst 6000 in the shown diagram has been configured with the following commands:set qos enableset port qos 5/1-48 vlan-basedset port qos 5/1-48 trust-ext untrustedset port qos 5/1-48 trust trust-cosAssuming that the IP Phone is connected to port 5/1, which statements are true?

A. The IP Phone will re-write the CoS of 802.1p/Q-tagged packets from the PC to CoS=0.

B. The Catalyst 6000 switch port 5/1 will re-write the CoS of all packets with a Cos=0.

C. The Catalyst 6000 switch port 5/1 will re-write the CoS of all packets received on VLAN 110 with CoS=5.

D. The IP Phone will not modify the DSCP of packets from the PC.

E. The Catalyst 6000 will not modify the CoS of any packets received on port 5/1.

Answer: A,E

#### **QUESTION 12:**

What protocol does an IP Phone use to learn the IP Address of its TFTP Server?

A. HSRP

B. DHCP

C. Skinny Station Protocol

D. STP

E. CDP

Answer: B

### **QUESTION 13:**

What interface does SMDI traditionally use?

A. Serial

B. Parallel

C. Ethernet

D. Firewire

E. USB

Answer: A

#### **QUESTION 14:**

Consider phone A, assigned to Calling Search Space A. Calling Search Space A contains the following partitions (in the order shown), listed with their respective Route Patterns:Partition\_A1, containing Route Pattern 1XXXPartition\_A2, containing Route Pattern 10XXIf Phone A dials "1001", what statement is true?

- A. Route Pattern 1XXX and 10XX both match, but since 1XXX is listed first, it will be chosen.
- B. Route Pattern 1XXX and 10XX both match, but since 10XX is a better match, it will be chosen.
- C. None of the route patterns are an exact match, thus none will match, and the caller will hear re-order tone.
- D. Both patterns are equivalent matches, and Call Manager will choose them in a round robin fashion.

Answer: B

#### **QUESTION 15:**

Consider:Phone A's device calling search space is CSS\_Dev\_A. Phone A's Line 1 is assigned calling search space CSS\_Line\_A.Route Pattern 2XXX is placed in Partition Part\_1.Route Pattern 20XX is placed in Partition Part\_2.Route Pattern 200X is placed in Partition Part\_3. CSS\_Dev\_A contains partition(s) Part\_1.CSS\_Line\_A contains partition(s) Part\_2.If a call is made to 2001 from Phone A, using Line 1, what route pattern will be chosen by Call Manager?

- A. 2XXX in partition Part 1
- B. 20XX in partition Part\_2
- C. 200X in partition Part 3
- D. None of the above (user gets re-order tone)

Answer: B

### **QUESTION 16:**

With Unity 3.0/ and Exchange 2000, which attributes are stored in Active Directory?

- A. Recorded Name
- B. Recorded Greeting(s)
- C. Alternate Extensions
- D. Transfer Type (Supervised, Release to Switch)
- E. Location ID

Answer: A.C.E

#### **QUESTION 17:**

AMIS is used to:

A. Send Email messages

- B. Send VoiceMail messages
- C. Send VoiceMail & Email messages
- D. Send Recorded names

Answer: B

### **QUESTION 18:**

Two Unity Servers can be placed in the same Dialing Domain if:

- A. They are in the same Exchange Site/Routing Group.
- B. Their subscribers do not have overlapping extensions.
- C. They do not have to dial trunk access codes to reach each other's subscribers.
- D. They are both assigned the same Location ID.
- E. They are attached to the same PBX.

Answer: B,C

## **QUESTION 19:**

From the perspective of the CallManager, the Unity TSP looks and behaves most like a:

- A. H.323 Gateway
- B. CTI Port
- C. Cisco IP Phone
- D. TAPI Device
- E. MGCP Gateway

Answer: C

### **QUESTION 20:**

The concept of Location is used by CallManager in order to:

- A. Define what CODEC to use between devices which may be separated by a WAN link.
- B. Define the bandwidth that can be used between devices
- C. Define groups of devices based on physical location, for the purpose of assigning Primary and Backup CallManager servers
- D. Group devices based upon physical location, in order to delegate Administrative Control

Answer: B

## **QUESTION 21:**

What MailStore option does Unity version 2.4.6 support?

- A. Exchange 5.5
- B. Exchange 2000
- C. Domino
- D. MS Mail

Answer: A

## **QUESTION 22:**

MPLS traffic engineering routing information is carried by:

- A. BGP MEDs
- B. MP-BGP
- C. OSPF Opaque LSAs or IS-IS TLVs
- D. RTP or RTCP packets

Answer: C

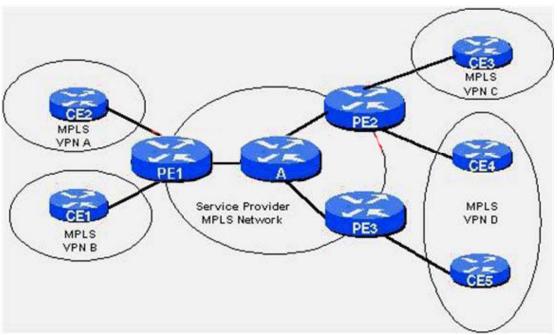
## **QUESTION 23:**

MPLS traffic engineering data is carried by:

- A. Opaque LSAs or IS-IS TLVs
- B. BGP MEDs
- C. RTP or RTCP packets
- D. MBGP

Answer: A

## **QUESTION 24:**



In the MPLS network shown, how many routing tables are on Router A?

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

Answer: A

## **QUESTION 25:**

MPLS does not support:

- A. Multicast
- B. OSPF
- C. BGP
- D. Multicast and OSPF

Answer: A

### **QUESTION 26:**

When a TCP segment is lost, the TCP sender reacts by: (multiple answer)

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

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is sent

Answer: A,D

### **QUESTION 27:**

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

A. access-list 100 deny ip tcp 144.23.67.0 0.0.0.7 eq telnet 197.55.34.240 0.0.0.15 eq telnetaccess-list 100 permit ip any any

B. access-list 100 deny tcp 144.23.67.94 0.0.0.7 any eq telnetaccess-list 100 permit ip any any

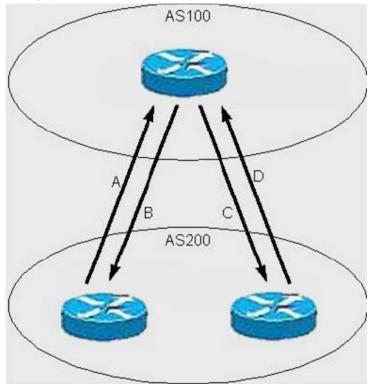
C. access-list 100 deny tcp 144.23.67.86 0.0.0.7 eq telnet 197.55.34.240 0.0.0.15access-list 100 permit ip any any

D. access-list 100 deny ip 144.23.67.94 0.0.0.7 host 144.23.67.94 access-list 100 permit ip any any

Answer: B

## **QUESTION 28:**

### Exhibit:



According to the diagram, what attribute is initiated by AS200 (IBGP) to give preference to the path A or D traffic will take when going from AS200 to AS100?

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What attribute is initiated by AS200 (EBGP) to give preference to the path B or C traffic will take when going from AS100 to AS200?

A. MED; Origin

B. MED; Local PreferenceC. Community; OriginD. Local Preference; MEDE. Origin; Community

Answer: D

### **QUESTION 29:**

In BGP, why should a Route Reflector be used?

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

Answer: C

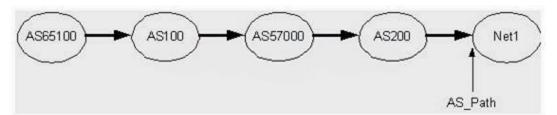
## **QUESTION 30:**

Which are the correct ways to release IBGP from the condition that all IBGP neighbors need to be fully meshed? (multiple answer)

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

Answer: B,D

#### **QUESTION 31:**



Using the above diagram, which are valid BGP AS\_Path Attributes received at Net1 for a route originating from AS65100? (multiple answer)

A. 200 57000 100 65100

B. 200 57000 100 100

C. 100 57000 200

D. 200 57000 100

E. 65100 100 57000 200

Answer: A,D,E

## **QUESTION 32:**

What SIP header is a SIP Proxy allowed to change?

A. Contact header

B. From header

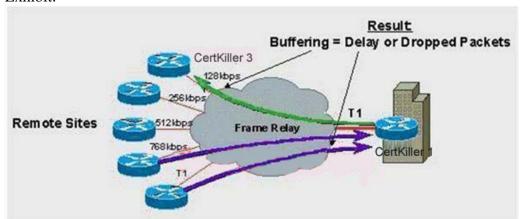
C. To header

D. Request-URI

Answer: D

## **QUESTION 33:**

#### Exhibit:



What mechanism should be employed to limit the "transmit rate" from Certkiller 1 to Certkiller 3?

#### A. Committed Access Rate

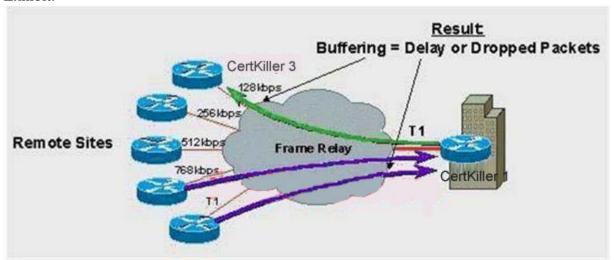
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- B. Traffic Shaping
- C. Weighted Fair Queuing
- D. Packet Classification w/ Weighted Fair Queuing
- E. None of the Above

Answer: B

## **QUESTION 34:**

#### Exhibit:



In the diagram shown, what mechanism needs to be employed on the remote site routers to aid congestion avoidance in the core, based on traffic priorities?

- A. IP Precedence Tagging
- B. Weighted Random Early Detection
- C. Random Early Detection
- D. Class Based Weighted Fair Queuing

Answer: A

### **QUESTION 35:**

Why is the Frame Check Sequence (FCS) used in Frame Relay?

- A. Congestion Control
- B. To ensure the integrity of transmitted data
- C. To retransmit data
- D. To provide SNMP traps

Answer: B

# **QUESTION 36:**

In Frame Relay, what devices resend packets that do not transmit correctly?

- A. Digital transmission media cabled to monitor ports, as opposed to straight DCE signaling
- B. Network end stations
- C. Network switches running SNMP management software
- D. Special bridging devices within the backbone cloud

Answer: B

### **QUESTION 37:**

What is true about the DLCI field in the Frame Relay header?

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

Answer: B

#### **QUESTION 38:**

#### Exhibit:

The following figure shows the format of the standard Frame Relay frame:

Field length, in bytes.

8 16 Variable 16 8

Flags Address DATA FCS Flags

The address field contains: (multiple answer)

- A. The DLCI Value
- B. The Extended Address (EA)
- C. Congestion Control
- D. FCS

Answer: A,B,C

### **QUESTION 39:**

A router is set to boot from flash, but cannot find boot commands in the configuration. Also, valid files do not exist in the default flash device. The router will:

A. Boot from ROM, since there are no valid sources

- B. Try to boot from the network, using a default filename
- C. Terminate the boot process with an error message
- D. Try to boot from the network, then boot from ROM as a backup

Answer: D

#### **QUESTION 40:**

A new Cisco router has no configuration defined. Which methods can be used to configure the router for the first time? (multiple answer)

- A. Using SNMP via a network management station
- B. Connecting a terminal to the console port and running the Setup dialogue
- C. Connecting a terminal to the console port and directly typing in configuration commands
- D. Using BOOTP/SLARP/RARP to download a configuration file that has been created ahead of time
- E. Connecting a terminal to the console port, defining a minimal configuration, connecting the router to the network, and using TFTP to download a configuration file that has been created ahead of time

Answer: B,C,D,E

#### **QUESTION 41:**

#### Exhibit:

```
stllab-8510>sh bootflash

-#- ED --type-- --crc-- -seek-- nlen -length- ----date/time----- name

1 .. unknown 9DA13DA5 3576AC 31 3241516 Aug 22 1998 08:34:22 cat8510c-in

2 .D unknown 8CDE134F 453BA3 22 2494584 Jul 20 1997 09:33:02 cat8510b-in
```

Upon deleting an IOS image file from flash, an execution of show flash shows the file still in flash, with a 'D' preceding it (as shown in the exhibit). What step must be taken in order to remove the file completely?

- A. Erase the file from flash
- B. Format the flash device
- C. Replace the flash card it is defective
- D. Execute a squeeze command on the flash device

Answer: D

#### **QUESTION 42:**

A company has been assigned the Class B address of 191.8.0.0 by the NIC. They have decided to use a subnet mask of 255.255.255.0 and an autonomous system number of 1.

The configuration for Router A is as follows: RouterA#show running-config Current configuration version 11.3 hostname Router& 2.) enable-password enablepassword interface ethernet 0 4.) ip address 191.8.1.1 255.255.255.0 5.) no mop enabled 6.) interface serial O ip address 191.8.150.1 255.255.255.0 8.) ip name-server 255.255.255.255 9.) ip host RouterB 191.8.150.2 191.8.2.1 10.) snmp-server community ccie 11.) line vty 0 4 12.) login 13.) line con 0 14.) line aux 0 15.) line vty 0 16.) password vtypassword 17.) line vty 1 18.) password vtypassword 19.) line vtv 2 20.) password vtypassword 21.) line vty 3 22.) password vtypassword 23.) line vty 4 24.) password vtypassword 25.) end Router A#

The configuration for Router B is as follows: RouterB#show running-config Current configuration: version 11.3 1.) hostname RouterB 2.) enable-password san-fran 3.) interface tokenring 0 4.) ip address 191.8.2.1 255.255.255.0 5.) ring-speed 16 6.) interface serial 0 7.) ip address 191.8.150.2 255.255.255.0 8.) ip name-server 255.255.255.255 9.) ip host & 191.8.2.1 191.8.150.1 10.) snmp-server community ccie 11.) logging buffered 12.) line vty 0 4 13.) login 14.) line con 0 15.) line aux 0 16.) line vty 0 17.) password cisco 18.) line vty 1 19.) password cisco 20.) line vty 2 21.) password cisco 22.) line vty 3 23.) password cisco 24.) line vty 4 25.) password cisco 26.) end RouterB#

Debug is enabled on Router B, but no debug messages appear on the terminal. Other commands (show commands, etc.) seem to be working. What are the probable causes for this? (multiple answer)

- A. Router B is not turned on.
- B. Debug information is being sent to A.
- C. The "terminal monitor" command needs to be executed if this is a virtual terminal session.
- D. Debug information is being sent to the buffer instead of to the console terminal.
- E. Debug information is configured at low priority, and will be displayed at a time when the router is less congested.

Answer: C,D

#### **OUESTION 43:**

A network administrator is using debug commands to check the performance of a network. What steps can the administrator take to ensure that the "debug" will not require too much CPU, or at least that she will not have to reboot the router to disable debug? (multiple answer)

- A. Make the debug command as specific as possible
- B. Use the max-time parameter of the debug command
- C. In configuration mode, enter scheduler interval 15
- D. Configure a loopback to channel debug traffic

Answer: A,C

### **QUESTION 44:**

On each LAN segment with multiple bridges running spanning tree, the bridge closest to the:

- A. Designated bridge is selected as root bridge
- B. Root bridge is selected as designated bridge
- C. Root bridge is not selected as designated bridge
- D. Designated bridge is not selected as root bridge

Answer: B

## **QUESTION 45:**

In a H.323 network, what function is NOT performed by the gatekeeper?

- A. Call admission control
- B. Number to IP address translation
- C. Codec negotiation
- D. Call routing
- E. Call authorization

Answer: C

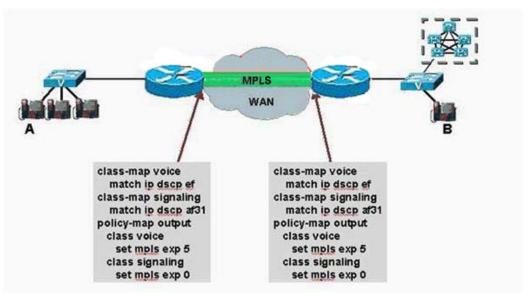
### **QUESTION 46:**

How many bytes are saved per VoIP packet by enabling cRTP on a standard G.711 call?

- A. 2-5 bytes per VoIP packet
- B. 12-15 bytes per VoIP packet
- C. 22-35 bytes per VoIP packet
- D. 35-38 bytes per VoIP packet
- E. 42-45 bytes per VoIP packet

Answer: D

### **QUESTION 47:**



Consider the QoS configuration in the picture shown for a VoIP call across an MPLS network. If IP Phone A calls IP Phone B, how will voice and signaling packets be marked by the time they arrive at the IP Phone B? NOTE: Assume the LAN switches (and any other equipment in the cloud) do not mark or remark the packets, and the complete MPLS router QoS configuration is shown in the picture.

A. Voice: DSCP EF; Signaling: DSCP AF31

B. Voice: DSCP EF; Signaling: 0

C. Voice: IP Precedence 5; Signaling: 0 D. Voice: IP Precedence 5; Signaling: 3

E. Voice: 0; Signaling: 0

Answer: A,D

#### **QUESTION 48:**

What percentage of a standard G.711 packet is taken by IP, UDP and RTP headers? (Note: cRTP not used)

A. 66%

B. 50%

C. 40%

D. 33%

E. 20%

Answer: E

### **QUESTION 49:**

What command will guarantee a maximum serialization delay of 10 ms on a converged 256 kbps Frame-Relay circuit?

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- A. frame-relay fragment-delay 10
- B. frame-relay fragment 320
- C. frame-relay serialization-delay 10
- D. frame-relay fragment 640
- E. frame-relay fragment 160

Answer: B

### **QUESTION 50:**

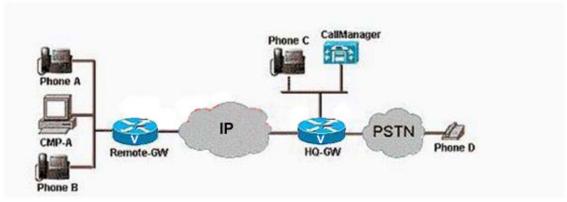
What is NOT a primary cause of echo in a voice network?

- A. 4 wire to 2 wire Hybrids
- B. Packet Loss In the IP Network
- C. Delay in the IP Network
- D. Acoustical Reflections

Answer: B

## **QUESTION 51:**

#### Exhibit:



During all calls from IP Phone A to Analog Phone D the user at IP Phone A hears persistent echo. During all calls from IP Phone A to IP Phone C no echo is heard. What is the best way to resolve the echo issue in the equipment under your control? (Note: Everything is under your control except for the PSTN)

- A. Adjust the Echo Cancellation parameters on Phone A
- B. Adjust the Echo Cancellation parameters on the CallManager
- C. Adjust the Echo Cancellation parameters on Phone D
- D. Adjust the Echo Cancellation parameters on Remote-Gw
- E. Adjust the Echo Cancellation parameters on HQ-GW

Answer: E

#### **QUESTION 52:**

Which standards are related to echo in a network.

A. G.165

B. G.711

C. G.174

D. G.168

E. G.323

Answer: A,D

## **QUESTION 53:**

When provisioning Cisco CallManager and IPCC Express (CRS), what what IPCC Express agent provisioning configurations are possible?

- A. One pool of agents shared among multiple scripts
- B. One pool of CTI ports shared among multiple scripts
- C. NxN mesh of agents and ports shared among N scripts
- D. All of the above

Answer: D

### **QUESTION 54:**

In a Cisco IPCC deployment, where CallManager is the routing client, upon receipt of a call, the ICM performs what function?

- A. ICM maps the Dialed Number to a call type and then maps the call type to a routing script.
- B. ICM Identifies and selects an available agent and determines the label to be returned to the routing client.
- C. ICM plays Music or targeted announcements for callers waiting in queue if no agents are available.
- D. A and B

Answer: D

#### **OUESTION 55:**



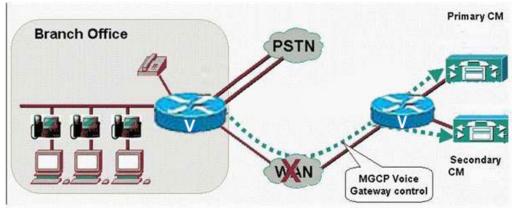
A user at Phone A finishes a call. Later, he notes that "CM Fallback Service Operating" is displayed on Phone A. Which are possible explanations for this?

- A. The TCP connection between phone A and call manager has been disrupted.
- B. Remote-GW has not received any messages from CallManager within the appropriate timeout period.
- C. The FE on Remote-GW is out of service.
- D. The FXO port on Remote-GW is out of service.
- E. The FE on HQ-GW is out of service.

Answer: A,E

### **QUESTION 56:**

#### Exhibit:



In a CM network deployed with MGCP to the branch office GWs, which two design methods should be used to protect branch office telephony (IP phone to IP Phone, and IP Phone to PSTN) when a WAN failure occurs?

- A. Primary and Secondary CMs
- B. SRST
- C. CM clustering
- D. MGCP Gateway fallback
- E. CAC

Answer: B,D

### **QUESTION 57:**

Survivable Remote Site Telephony (SRST) is a design method to enhance the availability of what type of telephony network design?

- A. CM toll bypass
- B. CM centralized call processing
- C. CM distributed call processing
- D. CM single site campus design

Answer: B

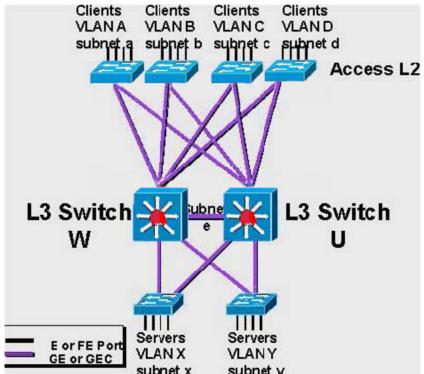
## **QUESTION 58:**

In a remote office in a CM network, which types of call processing functions do SRST preserve?

- A. IP phone to IP Phone calls
- B. IP Phone to conference DSP resources
- C. CTI applications such as IP SoftPhones
- D. IP Phone to Vmail transcoding services
- E. IP Phone to GW calls

Answer: A,E

### **QUESTION 59:**



The diagram shows a collapsed L3 switched building backbone consisting of two L3 switches: W and U. Each L3 switch has a routed interface on every subnet (VLAN) in the building. There are no VLAN trunks in the network. In other words the L3 switches are acting as native routers. There are exactly 4 client-side VLANs (subnets): a, b, c, d. There are exactly 2 server-side VLANs (subnets): x and y. There is one routed link (Subnet e) connecting the L3 switches in the core. How many equal-cost paths to Subnet d does L3 Switch W keep in its routing table?

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

Answer: A

### **QUESTION 60:**

What is an Inter Switch Link (ISL)?

- A. A protocol to interconnect switches across ATM only
- B. A protocol to interconnect switches across FDDI only
- C. An IEEE protocol to interconnect multiple switches
- D. A Cisco proprietary protocol for interconnecting multiple switches
- E. An IEEE protocol to interconnect multiple switches across Fast Ethernet

Answer: D

## **QUESTION 61:**

An incoming frame is received by a transparent bridge. If the destination address of the frame is not present in the database, the bridge will:

- A. Discard the frame
- B. Send out the frame on all interfaces, except on the interface where the frame originate
- C. Put the destination MAC address in the table
- D. Broadcast the frame on all interfaces
- E. None of the above

Answer: B

## **QUESTION 62:**

What happens to an incoming frame on a Layer 2 switch?

- A. The switch looks for an entry in its routing table for the destination MAC address and an associated outgoing port.
- B. The switch looks for an entry in its switching table for the destination MAC address and an associated outgoing port.
- C. The switch looks for an entry in its switching table for the source MAC address and an associated outgoing port.
- D. The switch looks for an entry in its routing table for the source MAC address and an associated outgoing port.

Answer: B

#### **QUESTION 63:**

An inverse ARP is sent:

- A. To map a hostname to an IP address
- B. To map an IP address to a hostname
- C. To map an MAC address to an IP address
- D. To map a MAC address to a hostname
- E. To map an IP address to a MAC address

Answer: C

## **QUESTION 64:**

#### AAA Can NOT be used for: (multiple answer)

- A. Unified messaging
- B. Admission
- C. Authentication
- D. Security
- E. Architecture
- F. Administration
- G. Billing

Answer: C,D,G

## **QUESTION 65:**

What is the proper configuration for VoIP authentication via Authentication, Authorization, and Accounting (AAA)?

- A. aaa new-modelaaa authentication login h323 radius
- B. aaa new-modelaaa authentication login default radius
- C. aaa new-modelaaa authentication h323 login radius
- D. aaa new-modelaaa authentication login h225 radius
- E. aaa new-modelaaa authentication login voip radius

Answer: A

### **QUESTION 66:**

The purpose of Administrative Distance, as used by Cisco routers, is:

- A. To choose between routes from different routing protocols when receiving updates for the same network
- B. To identify which routing protocol forwarded the update
- C. To define the distance to the destination used in deciding the best path
- D. To be used only for administrative purposes

Answer: A

## **QUESTION 67:**

What type of fiber-optic system is used to distribute cable television signals?

- A. Point to multipoint
- B. Local Area network
- C. Switched
- D. Point to point

Answer: A

### **QUESTION 68:**

What establishes routing table precedence in a routing table?

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

Answer: E

## **QUESTION 69:**

What is the usual procedure taken if an unrecognized non-mandatory ISDN IE is received by a network?

- A. Final handle the call
- B. Final handle the call if 2 such IE is received
- C. Ignore only if the IE received is not CS0, otherwise final handle the call
- D. Send a Facility msg to the user notifying the user of sending unknown IEs but don't final handle
- E. Ignore the IEs

Answer: E

## **QUESTION 70:**

What Q.931 message cannot be received in response to sending a Q.931 SETUP message?

- A. Alerting
- B. Call Proceeding
- C. Connect
- D. USER Information
- E. Progress

Answer: D

# **QUESTION 71:**

What describes a technique, used to encapsulate voice (NOT data) over ATM?

- A. RFC 1483
- B. LANE
- C. AAL-1
- D. RFC 1577

Answer: C

## **QUESTION 72:**

How long is an ATM cell header?

- A. 5 octets (bytes)
- B. 3 octets (bytes)
- C. 8 octets (bytes)
- D. The size varies by AAL type used

Answer: A

## **QUESTION 73:**

What is NOT an ATM class of service?

- A. CBR
- B. VBR-t
- C. ABR
- D. UBR
- E. CAR

Answer: E

#### **QUESTION 74:**

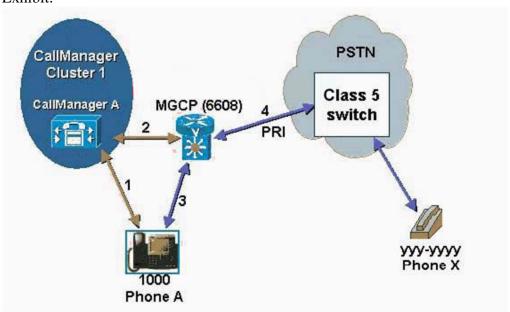
ATM switches use the VPI/VCI fields of the cell header:

- A. To identify the QOS parameters specified in the traffic contract between the ATM end station and the network
- B. To determine if the cell should be discarded in preference to others that have not exceeded their traffic envelope
- C. To identify the next intermediate destination to which the cell should be passed
- D. To determine if the header contains a checksum error and should be discarded
- E. To determine if the cell contains user data or control data

Answer: C

## **QUESTION 75:**

### Exhibit:



Assume that the gateway is a 6608 blade configured as a gateway and running MGCP; Call Manager runs version 3.1, and that a call is made from phone A to phone X. All IP streaming is G.711. Each of the logical links represented carries certain types of traffic. On which links can q.921 traffic be seen?

A. 4 only

B. 1, 2, 3, and 4

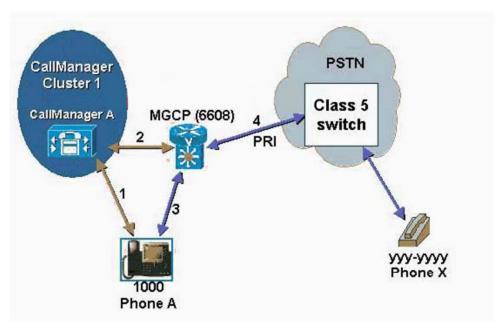
C. 1 only

D. 2 and 4

E. 2 and 3

Answer: A

# **QUESTION 76:**



Assume that the gateway is a 6608 blade configured as a gateway and running MGCP; Call Manager runs version 3.1, and that a call is made from phone A to phone X. All IP streaming is G.711. Each of the logical links represented carries certain types of traffic. On which links can Skinny (SCCP) traffic be seen?

A. 1, 2, 3, and 4

B. 2 and 3

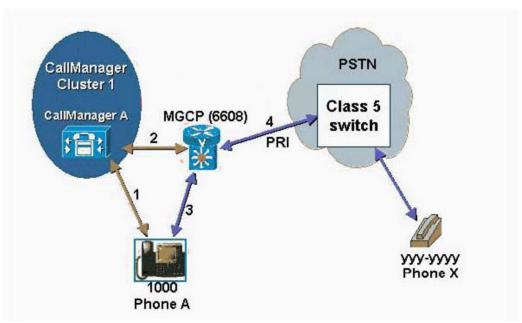
C. 1 only

D. 2, 3, and 4

E. 1 and 4

Answer: C

# **QUESTION 77:**



Assume that the gateway is a 6608 blade configured as a gateway and running MGCP; Call Manager runs version 3.1, and that a call is made from phone A to phone X. All IP streaming is G.711. Each of the logical links represented carries certain types of traffic. On which links can q.931 traffic be seen?

A. 2 and 3

B. 2, 3, and 4

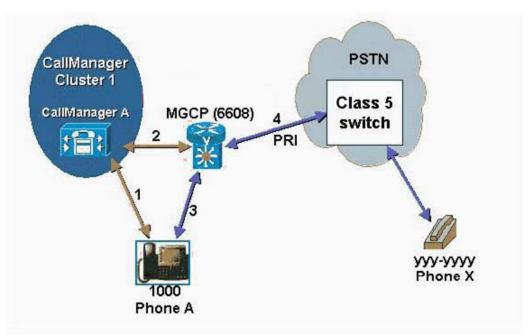
C. 1 and 4

D. 1, 2, 3, and 4

E. 2 and 4

Answer: E

## **QUESTION 78:**



Assume that the gateway is a 6608 blade configured as a gateway and running MGCP; Call Manager runs version 3.1, and that a call is made from phone A to phone X. All IP streaming is G.711. Each of the logical links represented carries certain types of traffic. On which links can RTP traffic be seen?

A. 2, 3, and 4

B. 3 only

C. 2 and 3

D. 1, 2, 3, and 4

E. 1 and 4

Answer: B

#### **QUESTION 79:**

PRI is the preferred method for inter-connecting CallManager 3.2 and below to PBX's because:

- A. It is the cheapest solution available
- B. It offers the highest level of inter-operability currently available between CallManager and PBX's
- C. It allows a customer to share their existing Voicemail system with Call Manager subscribers whilst delivering full functionality
- D. Caller ID is available

Answer: B,D

# **QUESTION 80:**

For what purpose is a DPA (Digital PBX Adapter) used?

- A. To connect an Octel 200/300/250/350 to CallManager
- B. To enable Calling-Name between CallManager and PBX
- C. To allow a customer to network Meridian Mail systems together
- D. None of the above

Answer: A

#### **QUESTION 81:**

What standards-based protocol will allow CallManager to seamlesslyIntegrate with other vendors' traditional PBX systems?

A. MGCP

B. PRI NI-2

C. QSIG

D. All of the above

Answer: C

#### **OUESTION 82:**

What statement is false about RIP v1?

A. RIP v1 is a classful routing protocol.

- B. RIP v1 does not carry subnet information in its routing updates.
- C. RIP v1 does not support Variable Length Subnet Masks (VLSM).
- D. RIP v1 can support discontiguous networks.

Answer: D

### **QUESTION 83:**

#### Exhibit:

```
interface eth 0
ip add 10.0.0.1 255.255.255.0

router rip
network 10.0.0.0
passive interface ethernet 0
neighbor 10.0.0.2
```

What statement is correct concerning the shown configuration?

A. Two RIP updates will be sent out on Ethernet 0: one broadcast to 255.255.255.255 and one unicast to 10.0.0.2.

B. Only one RIP update will be sent out on Ethernet 0 to the broadcast address

255.255.255, but no RIP updates will be received on Ethernet 0.

C. Two RIP updates will be sent out on Ethernet 0, one broadcast to 10.255.255.255 and one unicast to 10.0.0.2.

D. Only one RIP update will be sent out on Ethernet 0 to the unicast address 10.0.0.2.

Answer: D

#### **QUESTION 84:**

Which pins are used to supply Inline-Power to an IP Phone when using a Cisco Inline-Power Patch-Panel?

A. 4,5

B. 7,8

C. 4,5,7,8

D. 1,2,3,6

E. 1,2

Answer: C

#### **OUESTION 85:**

#### Exhibit:

```
*Mar 1 00:38:43.351: %SGBP-1-AUTHFAILED: Member C4500CD failed authentication
*Mar 1 00:38:57.723: %SGBP-7-NORESP: Fail to response to C4500CD group stack,
may not have password
*Mar 1 00:39:17.719: %SGBP-7-NORESP: Fail to response to C4500CD group stack,
may not have password
```

Using the shown debugging excerpt, what option best describes the problem?

- A. An ISDN router has a misconfigured username password pair.
- B. An ISDN router is missing the stack password.
- C. The offload server does not offload calls from ISDN routers not using PPP Multilink.
- D. The offload server has a bad password.

Answer: B

### **QUESTION 86:**

What is the best definition of the use of "Area 0" in OSPF?

A. Area 0 is used for administrative reasons, and is restricted from user definition.

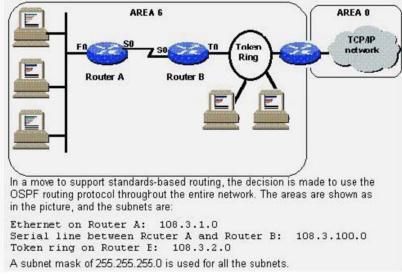
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- B. Area 0 is defined as the backbone, designed to be at the center of all routing updates, and controls the dissemination of updates between areas.
- C. Area 0 is used to authenticate messages received from other routers in the same area.
- D. Area 0 is used for forwarding all routing updates received within the same Autonomous System from directly connected areas only.
- E. Area 0 allows for routing updates to be forwarded between different Autonomous Systems.

Answer: B

### **QUESTION 87:**

#### Exhibit:



How should OSPF be configured on Router B?

A. router ospfnetwork 108.3.0.0

B. router ospf 1network 108.3.100.0 0.0.0.255 area 6network 108.3.2.0 0.0.0.255 area 6

C. router ospf 1network 108.3.100.0 0.0.0.255 area 6network 108.3.2.0 0.0.0.255 area 0

D. router ospf 1network 108.3.100.0 255.255.255.0 area 6network 108.3.2.0

255.255.255.0 area 6

E. router ospf 1network 108.3.1.0 0.0.0.255 area 6network 108.3.100.0 0.0.0.255 area 6network 108.3.2.0 0.0.0.255 area 6

Answer: B

#### **QUESTION 88:**

```
10.1.1.0/24 through OSPF
10.1.0.0/16 through EIGRP
10.1.0.0/16 static
```

If a router had the three routes listed, which one of the routes would forward a packet destined for 10.1.1.1?

A. 10.1.0.0/16 through EIGRP, because EIGRP routes are always preferred over OSPF or static routes.

B. 10.1.0.0/16 static, because static routes are always preferred over OSPF or EIGRP routes.

C. 10.1.1.0/24 through OSPF because the route with the longest prefix is always chosen.

D. Whichever route appears in the routing table first.

E. The router will load share between the 10.1.0.0/16 route through EIGRP and the 10.1.0.0/16 static route.

Answer: C

### **QUESTION 89:**

A router interface address is 180.60.45.96 with a mask of 255.255.255.224. What configuration statement will allow this interface to participate in OSPF Area 0?

A. router ospf 1network 180.60.45.96 255.255.255.32 area 0

B. router ospf 1network 180.60.45.96 0.255.255.224 area 0

C. router ospf 1network 180.60.45.96 0.0.0.31 area 0

D. router ospf 1network 180.60.45.96 0.0.0.224 area 0

Answer: C

#### **QUESTION 90:**

Select the group of technologies which are listed in descending order of bandwidth scale:

A. SDH, X.25, ATM

B. DWDM, SDH, Frame Relay

C. DWDM, SDH, ATM

D. ATM, DWDM, Frame Relay

Answer: C

#### **QUESTION 91:**

The Hold-Down Timer used in Distance Vector protocols:

- A. Sets the time limit of how long a router may keep a packet in its buffer, if the routing protocol is in the process of converging
- B. Determines the number of seconds a router will wait before sending another update to neighbor routers
- C. Sets a specific period for routers to neither accept or advertise a route from a destination where an original route was recently lost
- D. Sets a duration where routes are not accepted from the neighbor router that caused a routing loop

Answer: C

#### **QUESTION 92:**

In an IP Contact Center deployment, the Erlang-C Traffic Model is used to provision:

- A. Agents receiving/handling inbound calls
- B. Ports on a voice gateway interfacing to the PSTN
- C. Ports on an IP-IVR interfacing with Cisco CallManager
- D. Agents initiating/handling outbound calls only

Answer: A

### **QUESTION 93:**

A voice gateway processing 100 calls in the busy hour averaging six minutes each would be equivalent to:

- A. 100 Erlangs
- B. 360 CCS (call centum seconds)
- C. 10 Erlangs
- D. 60 Erlangs
- E. B and C

Answer: E

### **QUESTION 94:**

When provisioning Cisco CallManager device weights, what is taken into account?

- A. The total number of devices by type and BHCA per device
- B. The deployment model (Centralized or Distributed Call Processing)
- C. The server model and type
- D. A and C

Answer: D

### **QUESTION 95:**

What is RPF?

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

Answer: A

### **QUESTION 96:**

Which of the following CGMP (Cisco Group Management Protocol) statements is correct? (multiple answer)

- A. CGMP manages multicast traffic in Catalyst 5000 series switches by allowing directed switching of IP multicast traffic.
- B. CGMP will switch IP multicast packets to all ports in one specific VLAN.
- C. CGMP filtering requires a network connection from the Catalyst 5000 series switch to a router running CGMP.
- D. CGMP handles ARP, SAP, UDP, SSAP and DSAP.

Answer: A,C

### **QUESTION 97:**

#### Exhibit:

```
10.1.1.0/24
10.1.3.0/24
10.1.14.64/26
10.1.5.192/30
```

Given the four networks listed, what valid summary address (below) contains the longest prefix?

A. 10.1.0.0/20

B. 10.1.0.0/16

C. 10.1.1.0/23

D. 10.1.16.0/19

E. These networks cannot be summarized.

Answer: A

### **QUESTION 98:**

#### Exhibit:

192.168.10.0/25 192.168.16.64/26 192.168.0.0/27

Which addresses below are appropriate supernets to contain the addresses shown in the exhibit? (multiple answer)

A. 192.168.0.0/16

B. 192.168.0.0/19

C. 192.168.32.0/19

D. 192.168.1.0/24

Answer: A,B

### **QUESTION 99:**

When using IS-IS for IP routing, Dual IS-IS defined by RFC 1195, what is true? (multiple answer)

- A. It is necessary to configure a NSAP address.
- B. It is not possible to perform both IP and CLNS routing wih the same process.
- C. IP address and subnet information is carried in the TLV field on the L-1/L-1 LSPs
- D. Dual IS-IS does not support VLSM information.

Answer: A,C

#### **QUESTION 100:**

To eliminate the need for adjacent routers on broadcast networks to form n(n-1)/2 adjacencies, IS-IS defines a pseudonode or Designated Intermediate System, DIS. All router on the broadcast medium form an adjacency with the DIS. The Backup DIS is called:

- A. Redundant DIS
- B. BDR
- C. There is no concept of a backup DIS in IS-IS
- D. Designated Redundant System

Answer: C

### **QUESTION 101:**

For the spanning tree algorithm, a bridge builds part of its forwarding table based on:

- A. Destination MAC addresses
- B. 802.2 headers
- C. Source MAC addresses
- D. The Ethernet type field
- E. The SNAP field

Answer: C

# **QUESTION 102:**

What does SMDI stand for?

- A. Serial Message De-muxing Interface
- B. Simple Message Desk Interface
- C. Skinny Message De-muxing Interface
- D. Simple Modular Disk Interface
- E. None of the above

Answer: B

### **QUESTION 103:**

What statement is correct?

- A. An IP header is always smaller than 20 bytes.
- B. An IP header is always 20 bytes.
- C. An IP header is never bigger than 20 bytes.
- D. An IP header is 20 bytes long, or larger if options are used.
- E. None of the above

Answer: D

### **QUESTION 104:**

Which pins are used to supply Inline-Power to an IP Phone when using an Inline-Power enabled Catalyst Switch?

- A. 4,5
- B. 7.8
- C. 4,5,7,8
- D. 1,2,3,6

#### E. 1,2

Answer: D

#### **QUESTION 105:**

#### Exhibit:

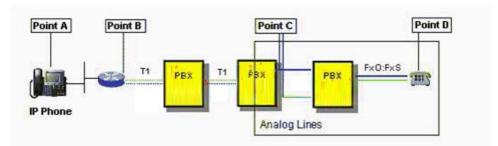


If a 7960 IP Phone sends voice media frames towards the access switch, how will these frames be observed at point A NOTE: Assume that a frame sniffer capturing data between the phone and the access switchNOTE: Assume the phone is connected into port FastEthernet0/1.

- A. The frame will be tagged with a 802.1Q VLAN ID of 12, and will have an 802.1p cos value of 3.
- B. The frame will be tagged with a 802.1Q VLAN ID of 112, and will have an 802.1p cos value of 5.
- C. The frame will be tagged with a 802.1Q VLAN ID of 0, and will have an 802.1p cos value of 3.
- D. The frame will be un-tagged.

Answer: B

### **QUESTION 106:**



In the diagram shown, what section of the voice path represents the Tail Circuit?

- A. Between Point A and Point B
- B. Between Point C and Point D
- C. Between Point A and Point D
- D. Between Point B and Point D

Answer: D

### **QUESTION 107:**

What statement about echo is false?

- A. Echo is caused by analog components in the voice path.
- B. Echo usually exists in a Circuit Switched environment, but goes unnoticed because of the low delay.
- C. The term "ERL" refers to a measurement of the volume of Echo heard by the user.
- D. Increasing the Echo-Cancellation coverage in an Echo Canceller may also increase Echo Canceller convergence time.

Answer: C

### **QUESTION 108:**

The TCP PUSH flag indicates:

- A. The data in the TCP receive buffer should be sent to the application listening to this TCP connection without waiting for further data.
- B. Any data being buffered by routers between the source and destination for this connection should be sent immediately.
- C. The sender should make certain its send buffer is pushed onto the wire.
- D. This session is about to end.

Answer: A

### **QUESTION 109:**

Cisco SIP Proxy can NOT perform what task?

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- A. User Agent
- B. Proxy Server
- C. Redirect Server
- D. Registrar Server

Answer: A

### **QUESTION 110:**

With CGMP enabled, which are unique about the following MAC address range: 01-00-5E-00-00-00 to 01-00-5E-00-00-FF? (multiple answer)

- A. CGMP does not prune those MAC addresses.
- B. They contain the CGMP Multicast addresses for the IGMP Leaves and IGMP Queries.
- C. CGMP filters those MAC addresses when they arrive at the processor
- D. They are the reserved IP addresses of 224.0.0.0 to 224.0.0.255 for forwarding local IP multicast traffic in a single Layer 3 hop.

Answer: A,B,D

### **QUESTION 111:**

What industry-standard protocol does CallManager support forIntegration to Voicemail systems?

- A. SMDI
- B. H.323
- C. T1-CAS
- D. None of the above

Answer: A

### **QUESTION 112:**

In a Cisco IPCC deployment, the CallManager communicates route requests to the ICM Central Controller via:

- A. A Peripheral Gateway
- B. A voice Gateway
- C. A router
- D. PSTN
- E. None of the above

Answer: A

## **QUESTION 113:**

What ATM or FR WAN technology will NOT allow cRTP to be used for the voice traffic carries over the bundle?

- A. MLPPP bundles of ATM PVCs
- B. Multi-link Frame Relay (FRF.16)
- C. ATM VC-bundling
- D. FR VC-bundling
- E. None of the above

Answer: C

#### **QUESTION 114:**

#### Exhibit:

A company has been assigned the Class B address of 191.8.0.0 by the NIC. They have decided to use a subnet mask of 255.255.255.0 and an autonomous system number of 1.

```
The configuration for Router A is as follows:
                                                  The configuration for Router B is as follows:
                                                  RouterB#show running-config
RouterA#show running-config
Current configuration
                                                  Current configuration:
                                                  version 11.3
version 11.3
1.) hostname Router&
                                                  1.) hostname RouterB
2.) enable-password enablepassword
                                                       enable-password san-fran
                                                  3.)
                                                       interface tokenring 0
3.) interface ethernet 0
    ip address 191.8.1.1 255.255.255.0
                                                      ip address 191.8.2.1 255.255.255.0
4.)
                                                       ring-speed 16
5.) no mop enabled
                                                  6.)
                                                       interface serial O
6.) interface serial O
                                                  7.) ip address 191.8.150.2 255.255.255.0
7.)
    ip address 191.8.150.1 255.255.255.0
                                                       ip name-server 255.255.255.255
    ip name-server 255.255.255.255
                                                  8.)
8.)
    ip host RouterB 191.8.150.2 191.8.2.1
                                                  9.) ip host & 191.8.2.1 191.8.150.1
10.) snmp-server community ccie
                                                  10.) snmp-server community ccie
                                                  11.) logging buffered
11.) line vty 0 4
                                                  12.) line vty 0 4
12.) login
                                                  13.) login
13.) line con O
                                                  14.) line con 0
14.) line aux 0
                                                  15.) line aux 0
15.) line vtv 0
                                                  16.) line vty 0
16.) password vtypassword
                                                  17.) password cisco
17.) line vty 1
                                                  18.) line vty 1
18.) password vtypassword
                                                  19.) password cisco
19.) line vty 2
                                                  20.) line vty 2
20.) password vtypassword
                                                  21.) password cisco
21.) line vty 3
                                                  22.) line vty 3
22.) password vtypassword
                                                  23.) password cisco
23.) line vty 4
                                                  24.) line vtv 4
24.) password vtypassword
                                                  25.) password cisco
25.) end
                                                  26.) end
Router A#
                                                  Router B#
```

What effect will this configuration command have?line vty 0 4no password vtypassword

- A. All telnet connections to the router will be denied.
- B. Only one telnet connection at the router will be allowed at a time.
- C. Virtual terminal sessions will not be able to enter enable mode.
- D. Virtual terminal sessions will not be asked a user-level password.
- E. It will have no effect.

Answer: A

### **QUESTION 115:**

Unity 4.0 introduces what standards-based protocol to send/receivemessages to/from other vendors Voicemail systems?

A. OctelNet

B. E&M

C. VPIM

D. AMIS-A

Answer: C

### **QUESTION 116:**

Gatekeeper call admission control is a policy-based scheme. What statements concerning it are true?

- A. It requires static configuration of available resources.
- B. Is not aware of the network topology.
- C. It is not necessary to restrict gatekeeper call admission control schemes to hub-and-spoke topologies.
- D. It is aware of the network topology.

Answer: A,B

### **QUESTION 117:**

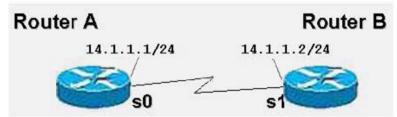
In Frame Relay, the BECN bit is set by:

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

Answer: B

# **QUESTION 118:**

Exhibit:



Based on the information above, which OSPF configurations listed are valid? (multiple answer)

A. routerArouter ospf 1network 14.0.0.0 0.255.255.255 area 0routerBrouter ospf 1network 14.0.0.0 0.255.255.255 area 0

B. routerArouter ospf 1network 14.1.1.0 0.0.0.255 area 0routerBrouter ospf 2network 14.1.1.0 0.0.0.255 area 0

C. router Arouter ospf 1network 14.0.0.0 0.0.255.255 area 0router Brouter ospf 1network 14.1.0.0 0.0.0.255 area 0

D. router Arouter ospf 1<br/>network 14.1.1.00.0.0.255 area 1<br/>router Brouter ospf 1<br/>network 14.1.0.00.0.255.255 area 0

Answer: A,B

### **QUESTION 119:**

A router is set up to redistribute routing updates from OSPF to RIP. What answer best describes issues the network administrator needs to be aware of?

- A. Split Horizon, Poison Reverse, Holddown
- B. Slow convergence, limited hop-count metric, lack of network mask information, periodic broadcasts
- C. None, OSPF is a link-state routing protocol which overcomes issues found in RIP.
- D. Difference in metrics (e.g. hops vs. cost), subnet mask allocation/addressing (e.g.

VLSM vs. fixed subnet mask length), routing protocol summarization (e.g. network boundaries)

Answer: D

#### **QUESTION 120:**

Routers running OSPF and sharing a common segment become neighbors on that segment. What statement regarding OSPF neighbors is FALSE?

- A. The Primary and Secondary addresses on an interface allow the router to belong to different areas at the same time.
- B. All routers must agree on the stub area flag in the OSPF Hello Packets.
- C. Neighbors will fail to form an adjacency if their Hello and Dead intervals differ.
- D. Two routers will not become neighbors if the Area-ID and Authentication

password do not match.

Answer: A

#### **QUESTION 121:**

During the busy hour, 100 Erlangs may be generated by:

- A. 1 call per hour averaging 100 minutes
- B. 3000 calls per hour averaging 2 minutes each
- C. 2000 calls per hour averaging 3 minutes each
- D. B and C
- E. None of the above

Answer: D

#### **QUESTION 122:**

When dimensioning call center agents receive calls from infinite sources (PSTN callers) where calls are queued during the busy hour, the traffic model typically used is:

- A. Extended Erlang-B
- B. Engset
- C. Erlang-C
- D. Binomial
- E. None of the above

Answer: C

#### **QUESTION 123:**

OSPF is defined on a Frame Relay interface providing point-to-multipoint connections. The remote neighbors can reach this central site, but are complaining of routing failures between each of the remote sites. The central router has all the routes for each remote site. Based on this information, what can be diagnosed as the biggest potential problem?

- A. An over-subscribed Frame Relay switch will cause some packet loss.
- B. There are problems in the use of OSPF Authentication.
- C. There is an incorrect selection of the Designated Router.
- D. There is an incorrect DLCI assigned on a point-to-point sub-interface.

Answer: C

### **QUESTION 124:**

Exhibit:



Host CK1 and Host CK2 are on Ethernet LANs in different buildings. A serial line is installed between two Cisco routers using Cisco HDLC serial line encapsulation. Routers A and B are configured to route IP traffic. Host CK1 sends a packet to Host CK2. What is the destination MAC address of the packet on Host's CK1 Ethernet?

- A. Host CK1
- B. Host CK2
- C. Router A
- D. Router B
- E. The broadcast address

Answer: C

### **QUESTION 125:**

An AS5300 is configured to authenticate a user for Authentication, Authorization, and Accounting (AAA) RADIUS server by prompting the user for a PIN number, etc., by using application clid\_authen\_collect. Users are dialing 5551000. What is the correct configuration?

A. dial-peer voice 1 potsincoming called-number 555....destination-pattern 1.....port 0:Dapplication clid\_authen\_collect

B. dial-peer voice 1 potsincoming called-number 5551000destination-pattern

1....application clid\_authen\_collect

C. dial-peer voice 1 potsdestination-pattern 1.....port 0:Dapplication clid\_authen\_collect

D. dial-peer voice 1 potsdestination-pattern 5551...port 0:Dapplication clid\_authen\_collect

Answer: A

### **QUESTION 126:**

interface ATM4/0.60 point-to-point
description ATM Link to BRANCH#60
bandwidth 3000
ip address 10.200.60.1 255.255.255.252
pvc BRANCH#60 0/60
vbr-nrt 3000 3000
tx-ring-limit \_\_\_\_
service-policy output WAN-EDGE

The low-speed ATM PVC shown carries both voice and data traffic. What is the most appropriate value for the tx-ring?

A. 0

B. 3

C. 10

D. 15

E. 60

Answer: B

#### **QUESTION 127:**

A T1 (1.536M) FR PVC must be configured for voice and data traffic. It is expected that voice will never require more than half of the bandwidth. What is the most appropriate FRTS configuration for this scenario?

A. map-class frame-relay FRTS-voiceframe-relay cir 1536000frame-relay bc 15360frame-relay be 0frame-relay mincir 1536000

B. map-class frame-relay FRTS-voiceframe-relay cir 1536000frame-relay bc 1536frame-relay be 0frame-relay mincir 1536000

C. map-class frame-relay FRTS-voiceframe-relay cir 1536000frame-relay bc 15360frame-relay be 1536frame-relay mincir 1536000

D. map-class frame-relay FRTS-voiceframe-relay cir 1536000frame-relay bc 15360frame-relay be 0frame-relay mincir 1536000

E. map-class frame-relay FRTS-voiceframe-relay cir 1536000frame-relay bc 15360frame-relay be 0frame-relay mincir 768000

Answer: E

#### **QUESTION 128:**

What is MQC?

- A. Modular Quality of Service Command Line Interface
- B. Mean Quality Coefficient
- C. Maximum Quality Carrier
- D. Minimum Quality Call
- E. Maximum Quality Call

Answer: A

### **QUESTION 129:**

Which queueing algorithms are recommended for Voice, Call Control and generic data traffic (respectively)?

- A. Priority Queuing, Custom-Queueing, Weighted-Fair Queueing
- B. Low-Latency Queueing, Class-Based Weighted-Fair Queuing and Weighted-Fair Queuing
- C. Low-Latency Queueing, Class-Based Weighted-Fair Queuing and Default Queuing
- D. Priority Queueing, Bandwidth Queuing and Fair Queuing
- E. Low-Latency Queueing, Class-Based Weighted-Fair Queuing and Fair Queuing

Answer: B

### **QUESTION 130:**

In MPLS what is an LSP?

- A. Label Selection Pair
- B. Label Switched Path
- C. Lightweight Signaling Protocol
- D. Large Sampling Path

Answer: B

### **QUESTION 131:**

What is NOT a reason to deploy MPLS?

- A. Ubiquitous acceptance and firm standards
- B. Traffic engineering capabilities
- C. Simplify lookups in software-based routers
- D. Potential use in VPN services

Answer: A

### **QUESTION 132:**

A Calling Search Space can be used by CallManager to:

- A. Enable the use of an overlapping dial plan
- B. Provide access-list-like security

- C. Restrict calls to numbers such as 1-900 and International long distance calls
- D. Enable the use of E911 services in a Centralized Call Processing model
- E. All of the above

Answer: E

### **QUESTION 133:**

When using the CCMAdmin page of a Subscriber CallManager, changes made to the configuration are:

- A. Made locally in the SQL Database, and replicated up to the publisher immediately
- B. Made locally in the SQL Database, and replicated up to the publisher at the next scheduled replication
- C. Made locally in the SQL Database, and in the Publisher SQL Database
- D. Made in the Publisher SQL Database, and replicated to subscribers

Answer: D

### **QUESTION 134:**

Migrating from TDM voice equipment to VoIP does not typically cause migration issues for customers who expect to be:

- A. Fully IP within 12 months
- B. Fully IP in 1 to 3 years
- C. Deploying in a Green-Field scenario
- D. All of the above

Answer: C

### **QUESTION 135:**

In a 128 kbs videoconference call, what combination will give you the best video quality?

- A. H.261 video and G.711 audio
- B. H.261 video and G.728 audio
- C. H.263 video and G.711 audio
- D. H.263 video and G.728 audio
- E. H.263 video and G.722 audio.

Answer: D

### **QUESTION 136:**

What ISDN timer is started after Q.931 SETUP msg is sent?

A. T301

B. T303

C. T302

D. T310

E. T305

Answer: B

### **QUESTION 137:**

The command encapsulation frame-relay:

- A. Configures the Local Management Interface (LMI) type for this router
- B. Tells the router to use Serial 0 as a frame relay connection
- C. This command tells the router to use Serial 1 as a frame relay connection
- D. None of the above

Answer: B

### **QUESTION 138:**

Which two operational states can PVCs be in? (multiple answer)

- A. Data transfer
- B. Idle
- C. Down
- D. Shut

Answer: A,B

### **QUESTION 139:**

What Delimits the beginning and the end of the Frame Relay frame?

- A. Address
- B. FCS
- C. Data
- D. Flags
- E. Packets

Answer: D

### **QUESTION 140:**

Which addresses below would be valid IP addresses of hosts on the Internet? (multiple answer)

A. 235.1.1.1

B. 223.20.1.1

C. 10.100.1.1

D. 127.0.0.1

E. 24.15.1.1

Answer: B,E

# **QUESTION 141:**

What does NOT contribute to lowered throughput in practical IP over ATM networks?

A. ILMI overhead

B. SAR delay

C. Cell tax

D. Cell padding

Answer: A

### **QUESTION 142:**

The ATM reference model is composed of which ATM layers? (multiple answer)

A. ATM layer

B. Physical layer

C. Modular layer

D. ATM adaptation layer

Answer: A,B,D

### **QUESTION 143:**

ATM cells are received across a link on a:

A. Known PVC or SVC value

B. Known VCI or VPI value

C. Known PVC or VCI value

D. Known SVC or VPI value

Answer: B

### **QUESTION 144:**

What type of signaling is most relevant to ATM networks supports SVCs?

A. H.323

B. Q.2931

C. ETSI.761

D. G.723

Answer: B

#### **QUESTION 145:**

The network administrator has forgotten the enable password of the router. Luckily, no one is currently logged into the router, but all passwords on the router are encrypted. What should the administrator do to recover the enable password?

- A. Call the Cisco Technical Assistance Center (TAC) for a special code that will erase the existing password.
- B. Reboot the router, press the break key during bootup, boot the router into ROM monitor mode, and modify the configuration register so that the current configuration is ignored during normal bootup
- C. Reboot the router, press the BREAK key during bootup, and boot the router into ROM Monitor mode to erase the configuration, and re-install the entire configuration as it was saved on a TFTP server.
- D. Erase the configuration, boot the router into ROM Monitor mode, press the BREAK key, and overwrite the previous enable password with a new one.

Answer: B

#### **QUESTION 146:**

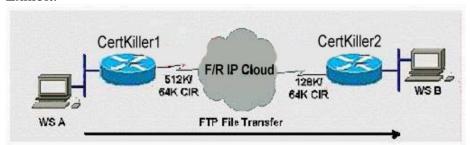
If a host sends a TCP segment with the RST flag set, it means:

- A. The receiver should send all data in the reassembly buffer to the application receiving it immediately.
- B. The receiver should reset the session.
- C. Any routers between the source and destination hosts should reset the state of the connection in their buffers.
- D. The receiver should make certain its send buffer is pushed onto the wire.

Answer: B

#### **QUESTION 147:**

#### Exhibit:



Certkiller 1 has a 512K-access port into the frame relay cloud. Certkiller 2 has 128K-access port into the frame relay cloud. The two routers are connected with symmetrical PVCs that are configured for 64K committed information rate (CIR). What Frame Relay Traffic Shaping map-class sub-command should be entered on Certkiller 1 to prevent workstation A from overrunning the access port on Certkiller 2?

- A. frame-relay traffic-rate 128000 512000
- B. frame-relay traffic-rate 64000 512000
- C. frame-relay traffic-rate 512000 64000
- D. frame-relay traffic-rate 128000 64000
- E. frame-relay traffic-rate 64000 128000

Answer: E

#### **QUESTION 148:**

Consider phones A and B. Both phones are registered in the same cluster. Phone A is configured with extension 1000. Phone B is configured with extension 2000. Indicate what choice below is necessary and sufficient to allow phone A to be able to call phone B AND phone B to be able to call phone A.

- A. Both phone extensions are in the same partition
- B. Both phones are assigned the same Calling Search Space
- C. Both (A) and (B)
- D. None of the above

Answer: D

### **QUESTION 149:**

To restrict SNMP access to a router, what configuration command could be used?

- A. snmp-server community
- B. snmp-server enable
- C. snmp-server log
- D. snmp-server host

Answer: A

### **QUESTION 150:**

Every time a typing mistake is made at the exec prompt of a router, the message from the router indicates a lookup is being performed. Also, there is a waiting period of several seconds before the next command can be typed. Can this behavior be changed?

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

Answer: B

### **QUESTION 151:**

What is Fast EtherChannel?

- A. A feature to bundle multiple Ethernet point-to-point links quickly into one logical high speed link
- B. A feature to bundle multiple Fast-Ethernet point-to-point links into one logical high speed link
- C. Another name for full-duplex Fast Ethernet
- D. Another name for Gigabit Ethernet
- E. None of the above

Answer: B

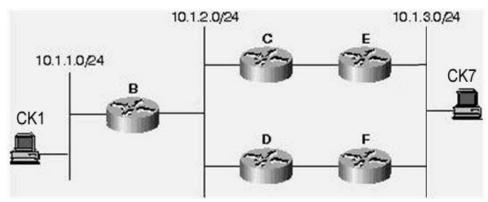
### **QUESTION 152:**

A Fast Ethernet connection supporting multiple VLANs is referred to as:

- A. A circuit group
- B. An emulated LAN (LANE)
- C. A trunk
- D. All of the above

Answer: C

### **QUESTION 153:**



In this diagram, Host CK7 is attempting to send a packet to Host CK1 through Router E. All routers are running EIGRP, and Router E has installed the following route in its routing table:1.1.0/24 via router F What will occur when Router E receives packets from Host CK7 that are destined for Host CK1?

- A. E cannot have a route to 10.1.1.0/24 through F; so it will always choose the path through C.
- B. This is a routing loop; E will forward the traffic to F, and F will send the traffic back to E.
- C. Router E will forward the traffic to Router F.
- D. Router E will forward the traffic to Router F and send a 'host not reachable this direction' ICMP packet to Host CK7.
- E. Router E will forward the traffic to Router F and send an ICMP redirect to Host CK7.

Answer: E

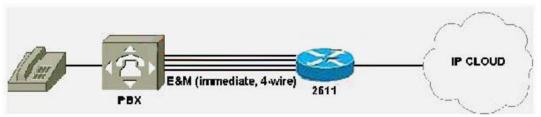
#### **QUESTION 154:**

When Gateways are registering with a Gatekeeper, the Gatekeeper can be:

- A. On the same LAN
- B. On the same subnet
- C. On a remote LAN
- D. In a different subnet
- E. Any of the above

Answer: E

### **QUESTION 155:**



What should an administrator do if the PBX does not receive the initial few digits from the IP side of the 2611?

- A. Configure prefix, in the dial-peer POTS to forward the necessary digits
- B. Configure delay-dial under the voice-port to add the delay
- C. Configure prefix delay in the dial-peer POTS to add the delay
- D. Configure interdigit timing 1 under the voice-port

Answer: A

#### **QUESTION 156:**

Which statements are true about Analog DID connections to the PSTN?

- A. DID trunks can only send calls towards the CO
- B. DNIS information is send in-band
- C. DID trunks can only send calls from the CO
- D. DNIS information is send out-of-band.

Answer: B,C

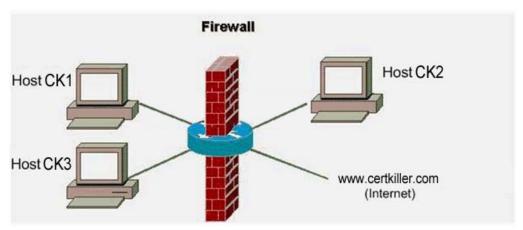
#### **QUESTION 157:**

A router is connected to a PBX via a 4 wire E&M circuit. All calls to the trunk are failing and it is suspected that the PBX is not seeing the incoming calls on the trunk. To determine if this theory is true the PBX is configured to generate dialtone when it sees an incoming call. Which of the following should cause the PBX to generate dialtone?

- A. Short the M pin to the Tip pin
- B. Short the M pin to ground
- C. Short the Tip pin to the Ring pin
- D. Short the E pin to ground
- E. Short the Tip pin to the M pin

Answer: D

### **QUESTION 158:**



A network engineer is troubleshooting a connectivity problem between Hosts CK1 and CK2. The following conditions exist:- Host CK1 can ping the firewall, but cannot ping Host CK2.- Host CK2 can ping both the firewall and www. Certkiller.com.- The firewall can ping www. Certkiller.com.- Host CK3 can ping the firewall and www. Certkiller.com.- Host CK1 and Host CK3 have the same permissions on the firewallWhat is the most likely problem?

- A. Routing protocols in the network are not set up properly, and not propagating across the firewall.
- B. Host CK1 has an incorrect default gateway configured.
- C. Host CK2 has an incorrect default gateway configured.
- D. Host CK3 has an incorrect default gateway configured.
- E. The firewall has an incorrect default gateway configured.

Answer: B

#### **QUESTION 159:**

In a Distance Vector protocol, "counting to infinity":

- A. Calculates the time taken for a protocol to converge
- B. Checks to make sure the number of route entries do not exceed a set upper limit
- C. Counts the packets dropped during a routing loop
- D. Sets an upper limit for hop count, so that routing loops can be broken if this limit is reached
- E. Causes the router to enter an infinite loop and requires the router to be restarted

Answer: D

#### **QUESTION 160:**

BGP can implement a policy of 'Route Dampening' to control route instability. What statement about route dampening is NOT correct?

A. A numeric penalty is applied to a route each time it flaps.

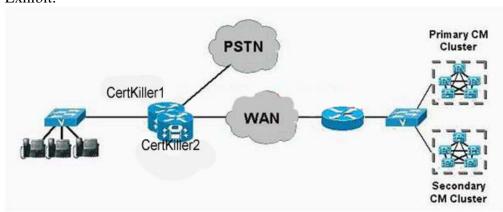
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- B. The penalty is exponentially decayed according to parameters, such as half-life-time.
- C. The history of unstable routes is forwarded back to the sender to control future updates.
- D. The route is eventually suppressed based on a configurable 'suppress limit'.

Answer: C

#### **QUESTION 161:**

#### Exhibit:



In the figure shown, HSRP is used in conjunction with SRST to preserve telephony functionality in a branch office. Consider a situation where a WAN failure occurs while Certkiller 1 (the primary router) is used. Certkiller 1 switches to SRST mode to preserve telephony functions. At this point Certkiller 1 fails, and HSRP backup CertKiller 2 becomes the active router for the branch office, taking over SRST and routing functions for the office. For Certkiller 2 to be effective in running SRST for the branch, which types of physical connectivity must be duplicated on Certkiller 1 and 2?

A. WAN

B. CMs

C. LAN

D. PSTN

E. VLANs

Answer: C,D

#### **QUESTION 162:**

For communications systems what describes the over-all health of the system?

- A. Bit-Error-Rate (BER)
- B. Synchronous Optical NETwork (SONET)
- C. Optical Signal to Noise Ratio (OSNR)

#### D. None of the above

Answer: A

#### **QUESTION 163:**

#### Exhibit:

```
A company has been assigned the Class B address of 191.8.0.0 by the NIC. They have decided
to use a subnet mask of 255.255.255.0 and an autonomous system number of 1
The configuration for Router A is as follows:
                                                                                                            The configuration for Router B is as follows:
 RouterA#show running-config
                                                                                                          RouterB#show running-config
 Current configuration:
                                                                                                           Current configuration:
                                                                                                           version 11.3
 version 11.3
 1.) hostname RouterA
                                                                                                            1.) hostname RouterB
           hostname RouterA enable-password enable-password san-free enable-password enable-password san-free enable-password san-fr
                                                                                                                       enable-password san-fran
 2.)
 4.) ip address 191.8.1.1 255.255.255.0 4.) ip address 191.8.2.1 255.255.255.0
                                                                                           5.) ring-speed 16
 5.) no mop enabled
6.) interface serial 0 6.) interface serial 0 7.) ip address 191.8.150.1 255.255.255.0 7.) ip address 191.8.150.2 255.255.255.0 8.) ip name-server 255.255.255.255
 9.) ip host RouterB 191.8.150.2 191.8.2.1 9.) ip host & 191.8.2.1 191.8.150.1
10.) snmp-server community ccie 10.) snmp-server community ccie
                                                                                                           11.) logging buffered
 11.) line vty 0 4
                                                                                                           12.) line vty 0 4
 12.) login
                                                                                                          13.) login
 13.) line con 0
                                                                                                          14.) line con 0
 14.) line aux 0
                                                                                                          15.) line aux 0
 15.) line vty 0
                                                                                                           16.) line vty 0
 16.) password vtypassword
                                                                                                           17.) password cisco
 17.) line vty 1
                                                                                                          18.) line vtv 1
 18.) password vtypassword
                                                                                                          19.) password cisco
 19.) line vty 2
                                                                                                          20.) line vty 2
21.) password cisco
 20.) password vtypassword
 21.) line vty 3
 22.) password vtypassword
                                                                                                          22.) line vty 3
                                                                                                          23.) password cisco
 23.) line vty 4
                                                                                                          24.) line vty 4
 24.) password vtypassword
                                                                                                           25.) password cisco
 25.) end
                                                                                                            26.) end
 Router A#
                                                                                                           RouterB#
```

The network associated with Router A's Ethernet 0 port is designed to be publicly accessible. However, Router B's Token Ring 0 network should be accessible only to hosts from Router A's Ethernet 0 network. What access list for Router B would accomplish this?

A. access-list 99 permit 191.8.1.0 0.0.0.255access-list 99 deny 0.0.0.0 255.255.255.255 B. access-list 103 permit 191.8.1.0 0.0.0.255access-list 103 deny 0.0.0.0 255.255.255.255

C. access-list 88 deny 0.0.0.0 255.255.255.255access-list 88 permit 191.8.1.0 0.0.0.255

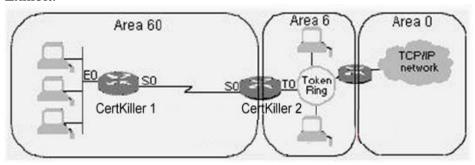
D. access-list 3 permit 191.8.1.0 255.255.255.0access-list 3 deny 0.0.0.0 0.0.0.0

E. access-list 99 permit 191.8.10.0 0.0.0.0access-list 99 deny 0.0.0.0 255.255.255.255

Answer: A

### **QUESTION 164:**

#### Exhibit:



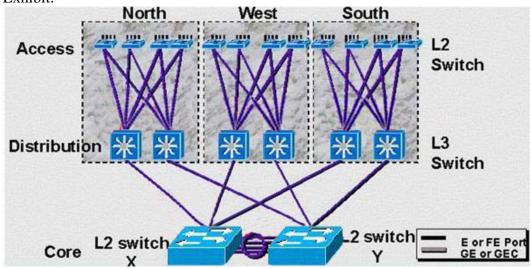
In a reorganization, OSPF areas are realigned. Is this a valid network design? If not, which changes could be made to the network and/or router configurations? (multiple answer)

- A. No changes are necessary.
- B. A virtual link could be configured between Area 60 and Area 0.
- C. A serial line or other physical connection could be installed between devices in Area 60 and Area 0.
- D. Router B could be configured as an Area Border Router between Area 60 and Area 6.
- E. This is not a valid design, and no changes can make it work.

Answer: B,C

### **QUESTION 165:**

#### Exhibit:



The diagram shows a campus with a L2 switched backbone. The backbone has a single VLAN (= subnet) with no loops. The links into the backbone are routed interfaces, not VLAN trunks. Switch X is the STP root of the core VLAN and switch Y is the standby root. The connection between X and Y is an EtherChannel. The network architect wants to add more redundancy by connecting the L3 switches in the distribution layer to both X and Y. What best describes that plan?

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- A. It is a sound idea because it increases bandwidth and redundancy.
- B. It is not sound financially because the extra links will be blocking.
- C. It will cause loops that STP cannot resolve.
- D. It is impossible because routers cannot have two interfaces on the same subnet.
- E. It is a sound idea because packets take a single L2 hop across the backbone.

Answer: D

### **QUESTION 166:**

A Cisco H.323 gatekeeper can resolve an address using:

- A. An H.323 ID
- B. An E.164 address
- C. An Email-ID
- D. A URL
- E. Any of the above

Answer: D

#### **OUESTION 167:**

The configuration register does NOT retain settings for:

- A. An enabled 'Break' key
- B. The console baud rate
- C. The boot method
- D. An enabled AUX port

Answer: D

#### **QUESTION 168:**

In Frame Relay, the FECN bit is set by:

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

Answer: A

### **QUESTION 169:**

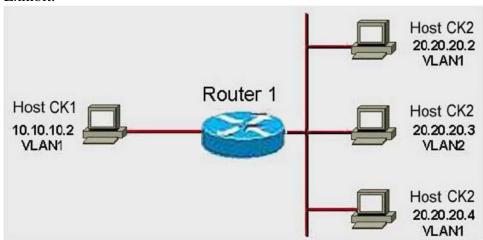
What mechanism enables cut-through switches to process a frame with reduced latency?

- A. The destination address is at or near the beginning of the frame.
- B. The CRC is at the end of the frame.
- C. The CRC is at or near the beginning of the frame.
- D. The source address is at or near the beginning of the frame.
- E. The data is compressed in the middle of the frame.

Answer: A

#### **QUESTION 170:**

#### Exhibit:



Host CK4 sends a frame to Host CK2 at the same time that Host CK2 sends a frame to Host CK4. Bridging is enabled on Router 1, and the two frames collide into each other. Select the best explanation of why Host CK2 will or will not receive the original frame from Host CK4:

- A. Host CK2 will receive the frame, since Hosts CK2 & CK4 are in the same VLAN.
- B. Host CK2 will receive the frame, since Hosts CK2 and CK4 are in the same routing domain.
- C. Host CK2 will not receive the frame, since Hosts CK2 and CK4 are in the same collision domain.
- D. Host CK2 will not receive the frame, since Hosts CK2 and CK4 are in different broadcast domains.
- E. Host CK2 will receive the frame, since Hosts CK2 and CK4 are in the same bridging domain.

Answer: C

### **QUESTION 171:**

What statement is correct regarding Virtual LANs (VLANs)?

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

Answer: C

#### **QUESTION 172:**

Exhibit:



An ISP offers debit card calling from the US to countries around the world where there is only FXO connectivity to the PSTN. It is important to the ISP that customers not be charged for the call unless the call successfully reaches the called party in the PSTN. What design requirement on the terminating FXO voice GW will achieve this ISP's requirements?

- A. Avoid use of FXO for this application, it cannot achieve the requirements.
- B. Configure call progress tone detection on the FXO interface to indicate answer supervision.
- C. Configure call progress tone detection on the FXO interface to indicate disconnect supervision.
- D. Use Voice Activity Detection (VAD) to derive whether or not a person answered the call.
- E. Use the CDR records to derive which calls resulted in "ring no answer" and which calls were answered.

Answer: B

#### **QUESTION 173:**

A Centralized Automatic Message Accounting (CAMA) trunk allows enterprise voice GW connectivity to the North American emergency (911) services of the PSTN. How does CAMA trunk signaling differ from FXO trunk signaling?

### <u>350-024</u>

- A. CAMA provides for dialed digit delivery, while FXO does not.
- B. CAMA supports only loopstart, while FXO supports ground- and loopstart.
- C. They do not differ in basic signaling, but CAMA is used exclusively for 911 calls, while FXO is used for general PSTN calls.
- D. CAMA provides for ANI digit delivery, while FXO does not
- E. FXO allows for dialed digit delivery, while CAMA does not

Answer: D

### **QUESTION 174:**

What standard defines the supplementary service for ISDN?

A. Q.931

B. Q.822

C. Q.932

D. Q.930

E. Q.742

Answer: C

### **QUESTION 175:**

What Network Management Server (NMS) application can monitor Voice quality by polling the SNMP MIB for MQC?

- A. Resource Manager Essentials
- B. Device Fault Monitor
- C. Voice Health Monitor
- D. Internetwork Performance Monitor
- E. Quality of Service Policy Manager

Answer: E

#### **QUESTION 176:**

What Network Management Server (NMS) application leverages the Service Assurance Agent within IOS to gather statistics on VoIP latency, jitter and loss?

- A. Resource Manager Essentials
- B. Device Fault Monitor
- C. Voice Health Monitor
- D. Internetwork Performance Monitor
- E. Quality of Service Policy Manager

Answer: D

### **QUESTION 177:**

A voice gateway is receiving calls from infinite sources (PSTN callers) during the busy hour where lost calls are cleared (blocked). The traffic model typically used to dimension the number of gateway ports/trunks required is:

- A. Erlang-C
- B. Poisson
- C. Erlang-B
- D. B and C
- E. None of the above

Answer: C

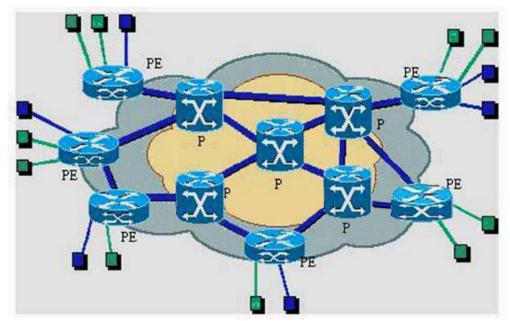
### **QUESTION 178:**

In a call center deployment, busy hour traffic for voice gateway port/trunk is based upon:

- A. Agent talk time (the time agent spends talking to a caller)
- B. Agent after call work time (AKA "agent wrap up time")
- C. Queue time (the time caller spends waiting in queue waiting for an agent to become available)
- D. A and C
- E. All of the above

Answer: D

### **QUESTION 179:**



Customers green and blue must communicate with each other. Which condition is required?

- A. Customer Blue and Customer Green must use BGP for routing to the Internet.
- B. Customer Blue and Customer Green must use unique addresses in their corporate networks.
- C. All Service Provider routers must use BGP.
- D. The Service Provider must provide BGP Peering to another Service Provider.

Answer: B

### **QUESTION 180:**

The two label distribution protocols that provide support for MPLS traffic engineering are:

- A. RSVP and OSPF
- B. CR-LDP and IBGP
- C. RSVP and CR-LDP
- D. LPS and LDS

Answer: C

### **QUESTION 181:**

What signaling protocol does Cisco use to provide support for MPLS traffic engineering?

A. RSVP

B. LDP

C. SS7

D. TDP

Answer: A

#### **QUESTION 182:**

What protocol does an IP Phone use to learn the Voice VLAN ID it should use for Voice Traffic?

A. VTP

B. 802.1q

C. CDP

D. Skinny Station Protocol

E. LLQ

Answer: C

### **QUESTION 183:**

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

A. To improve buffer utilization

B. To reduce the impact of routing loops

C. To allow calculation of round-trip delays

D. To remind us that all earthly joys are fleeting

E. To avoid delivery of packets that are no longer useful

Answer: B

### **QUESTION 184:**

If two routers connected to the same Ethernet are configured to run HSRP (Hot Standby Router Protocol) in the same group number, which router's MAC address will be associated with the virtual IP address?

- A. It depends on which router is active.
- B. Neither a virtual MAC address will be assigned based on the group number, unless the routers are configured to use their burned in addresses (BIA).
- C. The routers will negotiate and decide automatically which MAC address to use based on the routers' IDs.
- D. Both routers' MAC addresses will be associated with the virtual IP address.
- E. Neither the hosts will broadcast all traffic which needs to travel off-segment.

Answer: B

# **QUESTION 185:**

A Cisco SIP Proxy Server can make routing decisions based upon which criteria?

A. User-Portion of the Request-URI

B. SDP parameters

C. To: header D. From: header

Answer: A

### **QUESTION 186:**

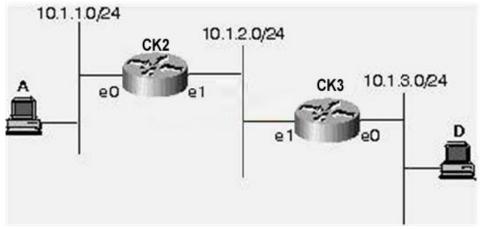
In a Cisco IP Contact Center solution (IPCC), what is in charge of agent state management, selection and reservation?

- A. Voice Gateway
- B. CallManager
- C. ICM Central Controller
- D. None of the above

Answer: C

### **QUESTION 187:**

#### Exhibit:



In this network, Host A is trying to reach Host D. There is no routing protocol running, but Router CK2 and CK3 have the following static routes configured:Router CK2: ip route 10.1.3.0 255.255.255.0 ethernet 1Router CK3: ip route 10.1.1.0 255.255.255.0 ethernet 1

A. This will not work because Router CK2 has no idea of how to forward traffic to the 10.1.3.0/24 network.

- B. This will work because Router CK2 will recognize that Router CK3 is on the 10.1.2.0/24 network through a router discovery protocol and will forward traffic for 10.1.3.0/24 to Router CK2 .
- C. This will not work because a broadcast interface in a static route command cannot be specified.
- D. This will work because Router CK2 will ARP for Host D's IP address on the 10.1.2.0/24 network and Router CK3 will answer.

Answer: D

### **QUESTION 188:**

What IE is not mandatory in a Q.931 Service msg?

- A. Bearer capability
- B. Channel ID
- C. Message Type
- D. Change Status
- E. Call Reference

Answer: A

# **QUESTION 189:**

If a Dialer Profile exists in the local configuration of a router, what is true?

- A. A virtual-access password is configured automatically.
- B. A virtual-access interface will inherit all configurations from the dialer profile.
- C. AAA parameters cannot be applied to an interface.
- D. None of the above

Answer: B

#### **QUESTION 190:**

In order to avoid loops when sending routing updates, what is the correct technique to prevent a network from being forwarded on the same interface it is learned?

- A. Poison Reverse
- B. The use of access-lists used with distribute-list
- C. Split Horizon
- D. This is not a problem, since this cannot happen.

Answer: C

#### **QUESTION 191:**

Within OSPF, what functionality best defines the use of a 'stub' area?

- A. It appears only on remote areas to provide connectivity to the OSPF backbone.
- B. It is used to inject the default route for OSPF.
- C. It uses the no-summary keyword to explicitly block external routes, defines the non-transit area, and uses the default route to reach external networks.
- D. It is a non-transit area that does not allow flooding of external networks and uses the default route to reach external networks.

Answer: D

### **QUESTION 192:**

A router is receiving updates for a subnet from different routing protocols. The administrator wishes to take advantage of a path via a route with a less favorable Administrative Distance. What can be done to effect this without losing any of the updates?

- A. Configure a static route with an Administrative Distance of 120
- B. Use the Router Configuration mode command distance with an appropriate 'weight' for this subnet
- C. Create a distribute-list to block this subnet
- D. Modify the default-metric weight of the routing protocol offering the more favorable Administrative Distance

Answer: B

#### **OUESTION 193:**

What is the best configuration for provisioning for VoIP at the WAN Edge?

- A. !version 12.2!class-map match-all VOICEmatch ip rtp 16384 32767class-map match-all VOICE-CONTROLmatch protocol skinny!policy-map WAN-EDGEclass VOICElow-latency queueing 33 percentclass VOICE-CONTROLclass-based queueing 2 percentclass class-defaultweighted-fair-queue!
- B. !version 12.2!class-map match-all VOICEmatch ip dscp efclass-map match-all VOICE-CONTROLmatch ip dscp af31!policy-map WAN-EDGEclass VOICEpriority percent 33class VOICE-CONTROLbandwidth percent 2class class-defaultfair-queue!
- C. !version 12.2!class-map match-all VOICEmatch ip dscp 5class-map match-all VOICE-CONTROLmatch ip dscp 3!policy-map WAN-EDGEclass VOICEpriority percent 33class VOICE-CONTROLbandwidth percent 2class class-defaultfair-queue!
- D. !version 12.2!class-map match-all VOICEmatch ip dscp 46class-map match-all

VOICE-CONTROLmatch ip dscp 26!policy-map WAN-EDGEclass VOICEpriority queue 33 percentclass VOICE-CONTROLbandwidth queue 2 percentclass class-defaultfair-queue!

Answer: B