Exam : 642-413

Title   : Enterprise Voice Over Data Design (EVODD)
New Questions Being Added Now

Ver : 10-14-04

QUESTION 1
What will you tell the new Certkiller trainee technician to do when you find that voice frames are being trapped by numerous data packets after fragmentation was implemented?

A. Decrease packet size.
B. Increase serialization.
C. Decrease serialization.
D. Implement priority queuing.
E. Implement aggressive fragmentation.

Answer: D

QUESTION 2
What is the maximum number of users that can be supported by any of the specified sets of platforms, albeit Cisco, Compaq, Dell or IBM, that supports the Cisco Unity application.

A. 1,490
B. 2,400
C. 5,000
D. 7,500
E. 9,500

Answer: D

QUESTION 3
You have been commissioned to design a WAN solution that will support both voice and data traffic for a Certkiller client, a college that has three remote campuses that are connected via dedicated T-1 respectively wants to extend IP telephony to its remote campuses. Every remote campus has approximately ten PCs and four telephones that are connected to key systems.
Which of the following issues will you take into consideration? (Choose all that apply.)

A. Will 5 digit dialing be supported at the remote campuses?
B. Which WAN access method will be cost efficient as well as provide the best service?
C. Will there be a need for new extension numbers?
D. Can E-91 be supported in a centralized call processing environment?
E. Which codes type will provide the best voice quality as well as not consuming too much WAN bandwidth?

Answer: B E

QUESTION 4
What will be your first action when you develop a voice over data migration?

A. Do a complete survey of the network topology.
B. Find out from the client what business requirements support a Voice over Data Migration.
C. Determine the existing voice features currently installed that will need migration to the Voice over Data Environment.
D. Determine if the migration of the existing voice features can be done without upgrading obsolete equipment.
E. None of the above.

Answer: C

QUESTION 5

Why do companies opt to make use of a G.792a rather than a G.729?

A. It receives a higher MOS score.
B. It is riddled with complex algorithms which makes virus attacks less like to occur.
C. It uses less complex algorithms.
D. It receives a lower PSQM score which makes it more user friendly.
E. It samples speech patterns more often.

Answer: C

QUESTION 6

What advice will you give to the new Certkiller trainee technician as to how much delay should be added to the total delay budget if Voice Activity Detection (VAD) is implemented?

A. 5 ms.
B. 10 ms.
C. 15 ms.
D. 50 ms.

Answer: A

QUESTION 7

Serialization delays usually occur when voice and data share a single PVC. What can you use to avoid excessive serialization delays when working in a Frame Relay network environment on a VoIP?

A. FRF.12.
B. Multilink PPP.
C. cRTP.
D. WRED.
E. None of the above.

Answer: A

QUESTION 8
Which of the following can have lost voice packets as a result? (Choose all that apply.)

A. Dejitter buffer overrun.
B. Global synchronization caused by multiple TCP flow simultaneously experiencing TCP slow start.
C. Network congestion/performance.
D. Network architecture (IP best effort).
E. All of the above.

Answer: A C D

QUESTION 9
What is the effect of a SID in a VAD environment?

A. Provides "Noise" to the listener.
B. Provides voice options to the server.
C. Saves bandwidth.
D. Performs the 5 ms look-ahead buffer required.
E. Provides management control of voice clipping.

Answer: C

QUESTION 10
Which of the following PBX features can be used to do the digit translation that is needed to provide dial plan transparency to a user when migrating from a traditional PBX system to an IP telephony environment?

A. ANI
B. CoS
C. NFAS
D. UDP/CDP.
E. None of the above

Answer: D

QUESTION 11
Which of the following determines the users that may access a partition?

A. Route lists.
B. Route group.
C. Partition Access Control List (PACL)
D. Calling Search Space.
E. Access Control List (ACL)

Answer: D

QUESTION 12
The newly appointed Certkiller trainee technician wants to know which of the following models would be most suitable for a Cisco router to use is PBX signaling protocol uses a single channel for information signaling when sending a proprietary signaling protocol across in IP WAN. What will your reply be?

A. Translate model using the proprietary signal.
B. Transport model using the proprietary signal.
C. Translate model using the cross-Connect method.
D. Transport model using the cross-connect method.
E. Translate model using the frame forwarding method.
F. Transport model using the frame forwarding method.

Answer: F

QUESTION 13
When using a clear-channel TDM Group, how many signaling channels can you crossconnect?

A. 1
B. 24
C. None.
D. Any number.

Answer: D

QUESTION 14
The new Certkiller trainee wants to know which of the following databases is used by the Public Safety Answering Point (PSAP) in a PBX Enhanced 911 implementation. What will your reply be?

A. PS-ALI Database.
B. ANI-ALI Database.
C. PBX-MLTS Database
D. LEC. ANI Database.
E. PBX-PSAP Database.

Answer: B

QUESTION 15
Which of the following signaling approaches, on a T1 circuit, is able to use 24 channels for voice as well as carry signaling information on each of those 24 channels?

A. E&M

B. RTP
C. CAS
D. CCS
E. QSIG

Answer: C

QUESTION 16

Which Cisco CallManager (CCM) deployment option would be the best suited for use by a
company that has four site offices that are thousands of miles apart and the WAN
currently in use is for purposes of toll bypass which leaves a large amount of bandwidth
free?

A. Multiple site deployment
B. WAN isolated deployment
C. WAN distributed deployment
D. Single site deployment
E. WAN centralized deployment

Answer: C

QUESTION 17

How is bandwidth associated with a location when location-based Call Admission Control
is implemented?

A. The gatekeeper uses SAA to maintain bandwidth.
B. The bandwidth is constantly balanced throughout the network.
C. The location has an allocated bandwidth pool.
D. The Cisco CallManager (CCM) uses RSVP to maintain bandwidth usage levels.

Answer: C

QUESTION 18

What type of DSP resource would you recommend for use when a company wants to
deploy centralized voice processing and its branch offices use G.729a over WAN and the
Unity Voice Mail server is located in the central office and supports only G.711?

A. MTP
B. codec
C. transcoder
D. RTP
E. conference

Answer: C

QUESTION 19
Which of the following are characteristics of the Catalyst 4000 gateway? (Choose all that
apply.)

A. G.711 and G.729a codes support.
B. Supports 6 ports analog, or 4 ports of analog and 2 TI/EI Ports.
C. Uses the Skinny Gateway Protocol.
D. Provides infrastructure consolidation and Cisco IP telephony support.
E. All of the above.

Answer: A B D.

QUESTION 20
Cisco CallManager (CCM) V3.0 and V3.1 is capable of registering a maximum of _____
phones per server.

A. 250.
B. 1,000
C. 2,500.
D. 10,000.

Answer: C

QUESTION 21
One of the Certkiller customers needs to have their legacy SMDI protocol voice mail system
supported. Which signaling protocol should the connection gateway support to fully
support the customer's legacy voice mail system?

A. SIP.
B. H.323.
C. H.245.
D. SCCP.
E. MGCP.

Answer: E

QUESTION 22
Which of the following statements regarding the Catalyst 6500 gateways are valid? (Choose
all that apply.)

A. It is incapable of supporting Cisco Fax relay.
B. It can supply full out-of-band DTMF and Cisco CallManager (CCM) Failover.
C. It enables the implementation of IP telephony by using existing Cisco Catalyst 6500
routers.
D. They are link cards that can be installed in any 6500 series switch.
E. It provides DID support or calling line identification (CLID) Support.

Answer: B D

QUESTION 23
Which of the following services is provided by gateways? (Choose all that apply.)

A. The connection between POTS and an FXS Port.
B. The access point for Cisco CallManager (CCM).
C. Access to IP telephones hassle-free.
D. Protocol conversion between terminals.
E. All of the above.

Answer: A, D

QUESTION 24
What does one call an endpoint that starts a SIP connection request?

A. Redirect Server.
B. User Agent Client.
C. Call Server
D. Proxy Server.
E. User Agent Server.

Answer: B

QUESTION 25
A call that was configured for MGCP came through a PSTN gateway. What is required of the gateway to complete the call?

A. It must query the gatekeeper
B. It must query the redirect server
C. It must query the call agent
D. It must query the internal dial peers

Answer: C

QUESTION 26
Which of the following protocols opens a logical channel between devices in the H.323 protocol suite?

A. H.225
B. H.245
C. H.322
D. H.323

Answer: B

QUESTION 27
The Common Channel Signaling produces what type of signaling?

A. In-band.
B. Shared-band.
C. Out-of-band.
D. Diffused-band
E. Separate-band.

Answer: C

QUESTION 28
If one neglect to check LAN/WAN utilization before design one can expect to encounter the following.

A. Improper route plan.
B. Inappropriate code selection.
C. A current data link being oversubscribed.
D. An increase in call blocking
E. A decrease in the probability of call blocking.

Answer: C

QUESTION 29
Which of the following does not form part of the projected monthly voice expense model?

A. New circuits to support growth.
B. New voice applications made possible by the migration.
C. Voice ports to support current voice traffic error-free.
D. New data network needs to support possible future growth.

Answer: B

QUESTION 30
What must be fully comprehended by a network designer so as to enable him to provide practical, proper capacity for IP telephony networks?

A. WAN link costs.
B. Number of IP phones.
C. The bandwidth of each VoIP call.
D. Number of outgoing calls per day
E. Router CPUS clock speeds.

Answer: C

QUESTION 31
The new Certkiller trainee is curious as to which group of devices have similar dialing accessibility. What will your reply be?

A. CoS groups
B. route groups
C. partitions
D. voice port groups
E. Calling Search Spaces

Answer: C

QUESTION 32
Which of the following represents a component of the H.323 specification?

A. RTP
B. H.322.
C. RAS
D. G.711
E. T.120

Answer: C

QUESTION 33
Why will you advice the new Certkiller trainee technician NOT to use CBWFQ for voice traffic?

A. No FIFO
B. Permits queue starvation.
C. Guarantees bandwidth but not delay.
D. Prohibits bandwidth.
E. Guarantees delay but not bandwidth.

Answer: C

QUESTION 34
Which of the following issues can you treat by using QoS Tools in a voice over data traffic network? (Choose all that apply.)

A. Scheduled access.
B. Outages of no more than a few microseconds.
C. Chronological data flow
D. Isochronous data flows.
E. First come, first served access.
F. Fixed data rate (Irrespective of network conditions).

Answer: B E

QUESTION 35

Which types of network equipment will you tell the Certkiller trainee technician to replace
when checking whether IP Telephony is supported in an existing data network? (Choose all
that apply.)

A. All Catalyst 1900 Platforms.
B. All Catalyst 1500 platforms.
C. All hubs.
D. All switch ports.
E. All switches that do not support Layer 3.

Answer: A C.

QUESTION 36

What is usually the first step that is performed when migrating a traditional telephony
system to a VoIP system?

A. Determine new applications to be integrated.
B. Determine the costs associated with existing PSTN Services.
C. Determine which of the existing voice features require migration.
D. Determine the projected future growth of the company.
E. Determine the voice and data requirements for the LAN/WAN.

Answer: C

QUESTION 37

64 kbps bandwidth for voice payload and no compression on voice signal is needed by
which of the following coding algorithms?

A. G.726.
B. G.729a
C. G.711
D. G.728.
E. G.729

Answer: C

QUESTION 38

In which way does Cisco Routers accommodate jitter?

A. It can use cRTP to specify interpacket delay.
B. It can use WRED to specify interpacket delay.
C. It can provide an adaptable play out buffer.

D. It can use RAS to eliminate jitter.
E. It can use LLQ to eliminate jitter for traffic placed in a priority traffic class.

Answer: C

QUESTION 39
What reason can one say is it that echo does not hamper operations on a conventional circuit-switched telephone network?

A. Circuit switched networks do not have 2 Wire to 4 wire hybrid circuits.
B. The round-trip delays through a circuit switched telephony network are typically less than 50 ms.
C. Circuit switched networks do not use the codes found in the IP telephony environment.
D. Round-trip delays on a circuit switched telephone network is more than 50 ms.
E. Echo is suppressed in a circuit switched network due to echo cancellers at the central office.

Answer: B

QUESTION 40
Which of the following error detection schemes are obsolete in the voice world? (Choose all that apply.)

A. Playout buffers.
B. UDP Checksums.
C. Sequence numbers.
D. Retransmission.
E. All of the above.

Answer: B D

QUESTION 41
When migrating a traditional PBX system to an IP Telephony system, which factors will you take into consideration? (Choose all that apply.)

A. Scalability.
B. Accessibility
C. Cost
D. Transportability.
E. Functionality.
F. Compatibility.
G. Referencability.

Answer: A C E F

QUESTION 42
Which of the following has the ability to transparently route a call to a dialed destination no matter the available physical path?

A. A route Table
B. Class of service.
C. A dial plan.
D. Number expansion.

Answer: C

QUESTION 43
On what is the router-to-router signaling based on when networking PBXs over an IPWAN?

A. CAS
B. H.322
C. CCS
D. H.323.
E. QSIG

Answer: D

QUESTION 44
Which of the following Enhanced 911 components is capable of identifying a dialable telephone number associated with a 911 call?

A. LEC
B. PS-ALI
C. ANI.
D. PSAP.
E. MLTS.

Answer: C

QUESTION 45
Which of the following clients warrants the invoking of an MTP?

A. clients that support supplementary call services (like call hold, and conference bridge) with H.232 clients
B. clients that do not support the H.323v2 features of OpenLogicalChannel and CloseLogicalChannel with the EmptyCapabilitiesSet
C. clients that do not need supplementary call services (like call hold and conference bridge) with H.323 clients
D. clients that support H.323v2 features of OpenLogicalChannel and CloseLogicalChannel with the EmptyCapabilitiesSet

Answer: B

QUESTION 46
In which of the following ways does QoS ensure voice quality? (Choose all that apply.)

A. by preventing voice from oversubscribing the link
B. by giving voice and data separate but equal access to the link
C. by alternating voice and data packets to provide fair access to the link
D. by giving voice priority over data
E. by preventing data from oversubscribing the link
F. all of the above

Answer: A D

QUESTION 47
Which signaling technique is used in a situation where calls are made between Cisco CallManager (CCM) V3.0 and V3.1 clusters across a WAN?

A. SS7
B. not-so-stubby
C. H.323
D. MGCP
E. Skinny

Answer: C

QUESTION 48
How may devices does three IP phones and two gateways represent in a Cisco CallManager (CCM) V3.1 environment?

A. 5
B. 9
C. 12
D. 18

Answer: B

QUESTION 49
How many subscribers are needed to support 10,000 IP phones and 20,000 device units when working in a Cisco CallManager (CCM) 3.3 environment with 1.1 redundancy that supports 2500 phones?

A. 4
B. 8
C. 16

D. 32

Answer: B

QUESTION 50
Which of the following statements regarding Cisco VG 200 is valid? (Choose all that apply).

A. The Cisco VG200 is not intended, tested, or supported for H.323 toll bypass, or as a session initiation protocol (SIP) gateway.
B. The Cisco VG200 is equipped with digital signal processors (DSPs) that convert analog and digital voice into IP packets using standard codes G.711 and G.723.1 but must be upgraded to use G.729 a or other.
C. The Cisco VG200 provides an autosensing 10/100 Ethemet Port.
D. The Cisco VG200 connects a Cisco IP telephony network to the PSTN, but not directly to an existing PBX.
E. The Cisco VG200 connects a Cisco IP telephony network to legacy telephones. Fax Machines, and voice conference units.
F. All of the above.

Answer: A C E.

QUESTION 51
Which of the following has a stateless endpoint architecture, akin to SCCP, insofar as that there is no real call routing intelligence on an endpoint?

A. SIP.
B. MGCP.
C. RTP.
D. H.323.

Answer: B

QUESTION 52
Which statement regarding a gatekeeper for H.323 call setup is valid?

A. It makes call setup optional.
B. It is not used for call setup.
C. If present in the network, it must be used for call setup.
D. If present in the network it may be used for call setup.
E. It must be present in the network and used for call setup.

Answer: C

QUESTION 53
Which of the following albeit not a component of H.232 protocol, must be supported by

H.323 devices in a Voice over Data network?

A. RAS.
B. STP
C. RTP.
D. T.120
E. H.245

Answer: C

QUESTION 54
Which of the following formulae will you use to determine the required bandwidth for voice?

A. Code bandwidth x 4.
B. Numbers of simultaneous calls x code bandwidth.
C. Code bandwidth x analog lines.
D. Code bandwidth x 16
E. Number of simultaneous calls x 24 kbps.

Answer: B

QUESTION 55
What percentage of capital cost would be estimated for cutover cost from a traditional telephony to an IP telephony network when making use of the Standard Cost-Saving Model to estimate implementation costs and no detailed analysis is available?

A. 2 To 5%
B. 5 To 10%
C. 10 To 15%
D. 25 To 30%.

Answer: C

QUESTION 56
The new Certkiller trainee wants to know which network protocols is capable of supporting fax transmission over a data network. What will your reply be? (Choose all that apply.)

A. T.120
B. FRF.11
C. T.10
D. T.30
E. T.38

Answer: B E

QUESTION 57
What can you use to avoid large data packet from delaying voice packets on a Frame Relay network?

A. FRF-5.
B. FRF-12
C. FRF-8
D. FRF-10

Answer: B

QUESTION 58
Which queuing technique would you recommend to the Certkiller trainee technician when handling voice traffic?

A. PQ
B. WFQ
C. LLQ
D. ARQ.
E. CBWFQ.

Answer: C

QUESTION 59
Certkiller has three remote campus locations. The remote campuses are located in offices, each with only four POTS connections, one of which also functions as a Fax connection.
A key system at each location has a dedicated T-1 circuit connecting back to the main campus and two POTS connections to the local PSTN CO.
Your CEO wants a new IP telephony system address in a centralized call processing environment.
Which design issues must the new IP telephony system address?

A. In the event of WAN failure, will Cisco CallManager (CCM) failover be required?
B. In the event of WAN failure, will there be a need to provide SRST functionality?
C. Can the new IP telephony solution provide the same features as their existing key systems?
D. Will there be a need to provide local Cisco CallManager (CCM) support at each location to replace the key systems?

Answer: B

QUESTION 60
Below are various types of coding algorithms. Which of them resort under the "Hybrid Coders" category of speech coding schemes?

A. LPC

B. PCM
C. HELP
D. CELP.
E. ADPCM

Answer: D

QUESTION 61
Which of the following are regarded as variable delays when calculating delay for voice?
(Choose all that apply.)

A. Queuing delay.
B. Serialization.
C. Dejitter buffer.
D. Propagation delay
E. All of the above.

Answer: A C

QUESTION 62
What is the purpose of a dejitter buffer?

A. A dejitter buffer replaces dropped packets with randomly generated comfort noise.
B. A dejitter buffer uses random queuing strategy to reduce variance on a first come first serve basis.
C. A dejitter buffer uses a priority queuing strategy to reduce variance in voice packet arrival times.
D. A dejitter buffer induces delay and smoothes out the variance in voice packet arrival times.
E. A dejitter buffer uses a look ahead algorithm to predict the next voice packet, thus reducing variable delay.

Answer: D

QUESTION 63
In what instances is translation utilized? (Choose all that apply.)

A. When routing all external inbound calls to an IVR System).
B. When routing a call to a recorded message if the caller tries to reach an unassigned DID number.
C. When restricting calls between partitions when Calling Search Space do not exist.
D. When rerouting a call to an attendant at an extension (e.g IIII) whenever a user dials 0.
E. All of the above.

Answer: A B D

QUESTION 64
You are a network engineer at Certkiller . You want to send a proprietary PBX signaling protocol across an IP WAN. The PBX signaling protocol on the Cisco router uses two channels for signaling information.
Which model would a Cisco router use in this scenario?

A. Translate model using the proprietary signal.
B. Transport model using the proprietary signal.
C. Translate model using the cross-connect method.
D. Transport model using the cross-connect method.
E. Translate model using the frame forwarding method.
F. Transport model using the frame forwarding method.

Answer: D

QUESTION 65
Your newly appointed Certkiller trainee technician wants to know what the major difference is between a PBX E911 solution and a Cisco CallManager (CCM) E911 solution.
What will your reply be?

A. The CCM solution requires a PS-ALI database.
B. The AS5300 gateway is required for states with ISDN PRI Services.
C. The AS5300 gateway is required for states with CAMA trunks.
D. With the CCM solution, the PSAP can directly query the CCM.
E. None of the above.

Answer: B

QUESTION 66
Which Cisco CallManager (CCM) deployment option would be the best suited for use by a company that has four site offices that are thousands of miles apart with three of these site offices having difficulty in hiring system administrative personnel and the WAN currently in use has free bandwidth.

A. single site deployment
B. WAN centralized deployment
C. WAN isolated deployment
D. multiple site deployment
E. WAN distributed deployment

Answer: B

QUESTION 67
A phone that is moved from site A to site B, requests 16K for calls.
What is the resulting bandwidth when a call request is made?

A. decrement only Site B by 16K
B. decrement only Site A by 16K
C. decrement Sites A and by 8K
D. decrement Sites A and 2 by 16K

Answer: B

QUESTION 68
How many Cisco CallManager (CCM) servers will you need when you want to build up a
2:1 redundant cluster supporting up to 7500 phones. (A Cisco CallManager (CCM) server
is capable of supporting 7500 phones.)

A. 1
B. 2
C. 3
D. 6
E. 9

Answer: C

QUESTION 69
Which of the following is supported by the Catalyst 4000 Access Gateway Module?

A. Digital DID with no digital CLID offered.
B. Analog DID with no digital CLID offered.
C. Digital DID or digital CLID only at one time.
D. Digital DID and digital CLID simultaneously.
E. Analog DID and digital CLID only at one time.

Answer: C

QUESTION 70
The new Certkiller trainee wants to know what the necessary functions necessary on a voice
gateway is. What will you reply? (Choose all that apply.)

A. Out-of-band DTMF Relay.
B. Measurement based CAC.
C. E & M services.
D. Supplementary services.
E. Cisco CallManager (CCM) Redundancy.
F. All of the above.

Answer: A D E.

QUESTION 71
Which of the following statements regarding MGCP is valid? (Choose all that apply.)

A. It is TCP-based, not UDP.
B. It involves a small set of simple transactions.
C. Its main emphasis is simplicity and reliability:
D. It is a peer-to-peer protocol.
E. Endpoints can be mass-produced cheaply.
F. It is a server to peer protocol.

Answer: B C E

QUESTION 72
What is the transport protocol used by H.245?

A. ARP
B. TCP
C. IPX
D. PBX
E. UDP

Answer: B

QUESTION 73
The new Certkiller trainee technician wants to know what type of signaling scheme Channel Associated Signaling is. What can you tell her?

A. Byte-oriented.
B. Call-oriented
C. Bit-oriented.
D. Protocol-oriented.
E. message oriented.

Answer: C

QUESTION 74
As a Certkiller network planner, what should you clarify with the client in the planning stage?

A. What are the equipment order dates?
B. Who owns the network?
C. Who is upgrading existing systems?
D. Who controls the network?
E. Who is configuring the systems?

Answer: C

QUESTION 75
Certkiller has five PBXs spread throughout its campus network. One of the five PBXs is
designated as the control cabinet, the other four feed back to the control cabinet for call
processing. The PBXs use nine T-1 circuits to connect to the PSTN.
The five PBX nodes service approximately 6,000 analog telephones, as well as fax machines
and conference speakerphones.
Which two design issues must the new IP telephony system address (Choose all that apply.)

A. How old are the correct PBXs?
B. How many users are connected to each PBX?
C. How many PBX technicians are employed by Certkiller ?
D. How many analog ports will be required to support the existing POTS devices?
E. Has a traffic engineering study been done to determine if the number T.Ist is correct?

Answer: D E

QUESTION 76
To how many devices units are one voice gateway and one IP phone equivalent to?

A. 2
B. 3
C. 4
D. 6

Answer: C

QUESTION 77
You are a network engineer at Certkiller . Your newly appointed Certkiller trainee wants to
know which QoS functions are used to prioritize Voice over Data.
What will your reply be? (Choose all that apply).

A. Policing.
B. Queuing.
C. Encryption.
D. Classification.
E. Fragmentation.

Answer: B D

QUESTION 78
You are the network engineer at Certkiller . You are applying QoS in the Certkiller LAN.
You want voice traffic to be prioritized over all other traffic so it can maintain low latency
and high quality.
Which tools can you use to accomplish this? (Choose all that apply.)

A. CoS.

B. DSCP.
C. CBWFQ.
D. Fragmentation.
E. Traffic shaping.

Answer: A B

QUESTION 79
You are a network engineer at Certkiller . The newly appointed Certkiller trainee wants to
know if there are any reasons to disable VAD.
What will your reply be? (Choose all that apply.)

A. For Fax Calls.
B. For Voice Calls.
C. For Modem Calls.
D. For a higher MOS score.
E. To eliminate clipped speech.

Answer: A C E

QUESTION 80
Which of the following CODECs has the highest Mean Opinion Score (MOS)?

A. G.711
B. G.726.
C. G.729.
D. G.729a.

Answer: A

QUESTION 81
When you are calculating delay for voice, what would be considered a fixed delay?

A. Dejitter buffer.
B. Queuing delay.
C. Propagation delay.
D. Network congestion.

Answer: C

QUESTION 82
Which of the following methods can you use to play out a lost packet in a VoIP
environment? (Choose all that apply.)

A. Repeal the previous packet.
B. Retrieve the lost packet from the upstream router cache.

C. Interpolate the sound based on the previous and following sound packet characteristics.
D. Add in some predetermined, calculated noise.
E. Add in new interference to intercept the lost packets from the cache.

Answer: A C D

QUESTION 83
Which of the following add to the effects of jitter? (Choose all that apply.)

A. Propagation delay.
B. Large Packets on slow links.
C. Queuing delay.
D. Oversubscription.
E. Repeal of lost packets.

Answer: B C D.

QUESTION 84
Which of the following will you take into consideration when you need to calculate a delay budget? (Choose all that apply.)

A. MTU Buffer.
B. Processing
C. Queuing delay.
D. Impedance.
E. Propagation
F. All of the above.

Answer: B C E.

QUESTION 85
You are a network engineer at Certkiller . Your newly appointed Certkiller trainee wants to know which industry specification is used to internet work or exchange messages between disparate voice messaging systems.
What will your reply be?

A. CTI.
B. CAS
C. AMIS.
D. SMDI.
E. DTMF.

Answer: C

QUESTION 86
Which of the following statements are valid when one considers that the H.225 gatekeeper

controlled trunk will permit communication between Cisco CallManager (CCM) and other CCMs and H.323 devices that are registered to a single gatekeeper. (Choose all that apply.)

A. Calls are lead balanced across the registered trunks in the CCM cluster.
B. The H.225 gatekeeper controlled trunk is not configured in the CCM cluster.
C. The gatekeeper has a gatekeeper zone configured for each site supporting CCM or voice gateways.
D. The interzone bandwidth command on the gatekeeper is used to control bandwidth between CCM clusters and H.323 devices registered directly with the gatekeeper.

Answer: A C

QUESTION 87
You are a network engineer at Certkiller . Your newly appointed Certkiller trainee wants to know what mechanism is used in Cisco CallManager (CCM) to limit the bandwidth used between sites for Call Admission Control.
What will your reply be?

A. Sites
B. regions
C. locations
D. partitions
E. device pools

Answer: C

QUESTION 88
You are a network engineer at Certkiller . Your newly appointed Certkiller trainee wants to know what the purpose of intercluster communication is. What will your reply be? (Choose all that apply.)

A. It controls call routing
B. It stores standard report data
C. It passes device status messages
D. It distributes database information
E. It propagates run-time information

Answer: C E

QUESTION 89
What is the maximum number of servers in cluster that Cisco CallManager (CCM) V3.1 supports?

A. 4
B. 5
C. 6

D. 7
E. 8

Answer: E

QUESTION 90
Which of the following does VG-248 include? (Choose all that apply.)

A. 24 digital ports.
B. 48 digital ports.
C. 24 analog ports.
D. 48 analog ports.
E. Low density gateways.
F. Support for analog telephones fax machines, modems, voice mail systems and speakerphones.

Answer: D F

QUESTION 91
The SIP protocol is used for communication between which devices in a Cisco IP telephony network?

A. CCM to MCU.
B. CCM to gateway.
C. IP Phone to CCM.
D. IP Phone to MCU.
E. IP Phone to IP Phone.

Answer: E

QUESTION 92
What was the major reason for the development of revision 2 of the H.323 standard?

A. To overcome the product incompatibility that marred the original H.323 standard.
B. New packet based PSTN service initiative started to encroach on new VolP markets.
C. To overcome the product incompatibility that resulted from an absence of a standard for H.323 QoS.
D. New PSTN capabilities rendered the existing H.323 standard ineffective in delivering quality VolP services.

Answer: A

QUESTION 93
Which of the following protocols has Cisco implemented in VoIP networks? (Choose all that apply.)

A. SIP.
B. DCS.
C. CDP.
D. H.323.
E. MGCP.
F. MCDN.

Answer: A D F.

QUESTION 94
Which of the following are integral components necessary for the successful deployment of voice of data networks, especially in the Planning stage? (Choose all that apply.)

A. Dial-plan.
B. MPLS frame tags.
C. Telephone numbers.
D. IP addressing.
E. All of the above.

Answer: A C D

QUESTION 95
The Deployment model has certain stages. During which stage would you discuss the capture or estimate cost with the customer?

A. Planning.
B. Implement.
C. Design.
D. Operate.

Answer: C

QUESTION 96
You are a network engineer at Certkiller . Your newly appointed Certkiller trainee wants to know what he should use when given the instruction to implement QoS tools to protect voice from voice. What will your reply be?

A. Prioritization tools.
B. Call admission tools.
C. Link efficiency tools
D. Traffic regulating tools
E. Traffic shaping tools

Answer: B

QUESTION 97
Certkiller has three remote offices that are connected to the head office via dedicated T-1 respectively. The CEO wants to extend this connectivity by means of IP telephony. Every remote office has between five and ten PCs and four telephones that are connected to key systems.
As the network designer, which issues will you take into consideration when designing the WAN solution that will be capable of supporting both voice and data traffic?
(Choose all that apply)

A. What IP Telephone features are required at each location?
B. How many PBX technicians are employed by Certkiller ?
C. How much WAN bandwidth is currently being used by the data traffic?
D. Can the remote campuses be accommodated in the correct dial plan?
E. How much bandwidth is expected to be consumed by each IP Phone call?
F. Will there be a need for new extension numbers?

Answer: C E

QUESTION 98
Which codec amounts to the least delay when calculating the overall delay budget?

A. G.729a.
B. G.711
C. G.726.
D. G.728
E. G.729.

Answer: B

QUESTION 99
In which of the following would you most probably encounter echo?

A. In a PBX.
B. In a router
C. In the central Office
D. In a two wire bi-directional transmission medium

Answer: D

QUESTION 100
Which of the following statements regarding the way in which Cisco CallManager (CCM) can use translation patterns are valid? (Choose all that apply.)

A. Digit translate is only possible on external calls.
B. Digit translate can be used on internal and external calls.
C. Digit translation is only possible on outbound calls.

D. Digit translation can be used on inbound or outbound calls.
E. All of the above.

Answer: B D

QUESTION 101
Which two approaches can be used for signaling purposes between legacy voice mail systems and PBXs? (Choose all that apply.)

A. Out-of-band SMDI.
B. In-Band SMDI.
C. In band MGCP
D. In band DTMF.
E. Out-of-Band DTMF.
F. Out-of-band MGCP.

Answer: A D

QUESTION 102
What would be the appropriate Cisco CallManager (CCM) deployment option for a customer who has four geographically dispersed offices that are experiencing heavy traffic on its current data WAN, but does not want to upgrade?

A. single site deployment
B. WAN distributed deployment
C. WAN distributed deployment
D. Multiple site deployment
E. WAN centralized deployment

Answer: C

QUESTION 103
What action will an IP phone perform when the primary Cisco CallManager (CCM) server is brought back online?

A. re-establishes a connection to the primary CCM server after a wait period
B. re-establishes a connection to the primary CCM server
C. maintains connectivity with the secondary CCM server after device reboot
D. replaces an old primary CCM server
E. establishes the old primary CCM server as the new secondary CCM server

Answer: B

QUESTION 104
Which of the following represents characteristics of the Catalyst 4000 gateway? (Choose all that apply.)

A. Makes use of the not-so-stubby Gateway Protocol.
B. Capable of supporting 6 ports analog, or 4 ports of analog and 2 TI/EI Ports.
C. Provides infrastructure consolidation in addition to Cisco IP telephony support for the remote office.
D. Uses the Skinny Gateway Protocol.
E. Supports the G.711 and G.729a codes.
F. All of the above.

Answer: B C E.

QUESTION 105
SIP is characteristic of which type of protocol?

A. Client peer.
B. Server-to-server
C. Server-peer.
D. Peer-to-Peer.
E. Client-server.

Answer: D

QUESTION 106
What is the function of H.225 RAS when used by H.323?

A. register with the MCU.
B. request extension numbers
C. register with the gatekeeper
D. request extension resources from CFB
E. request conference resources from the CFB

Answer: C

QUESTION 107
What is the function of a data network assessment?

A. Determining current voice traffic cost.
B. Determining PBX protocol requirements.
C. Determining IP telephony considerations.
D. Determining delay costs.
E. Determining voice circuits cost between all offices.

Answer: C

QUESTION 108
Which of the following can you expect to encounter if you neglect to check LAN/WAN

utilization before design?

A. Improper route plan.
B. Inappropriate code selection.
C. A current data link being oversubscribed.
D. An increase in call blocking
E. A decrease in the probability of call blocking.

Answer: C

QUESTION 109
How many subscribers are required to support 10,000 IP phones and 20,000 device units when working in a Cisco CallManager (CCM) 3.3 environment with 1.1 redundancy, supporting 2500 phones?

A. 3
B. 8
C. 9
D. 15

Answer: B

QUESTION 110
What feature does G.729b add to G.729?

A. Increases sampling rate.
B. Lower Complexity Algorithm.
C. Higher Complexity algorithm.
D. Voice Activity Detection (VAD).

Answer: D

QUESTION 111
In which way does tandem switching affect voice quality?

A. Quality is decreased due to transcoding.
B. Quality is decreased due to dual use of PCM
C. Quality is decreased due to multiple decoding encodings.
D. Quality is decreased due to optimal pathing.
E. Quality is decreased due to the use of PCM.

Answer: C

QUESTION 112
What type of call is made when one IP phone calls another IP phone that is registered to the same Cisco CallManager (CCM)?

A. Local call.
B. Internal Call.
C. Cached call.
D. International Call
E. External Call.

Answer: B

QUESTION 113
What signaling approach is capable of using 23 channels for voice and one for data on a TI circuit?

A. CAS
B. CES
C. E&M
D. CCS
E. QSIG

Answer: D

QUESTION 114
Why is it beneficial to a company to make use of the 1.1 redundancy model?

A. Lower deployment cost.
B. Low labor intensity.
C. High Availability.
D. Increased server count.
E. Lower maintenance cost.

Answer: C

QUESTION 115
Which of the following are SIP components? (Choose all that apply.)

A. User Agent.
B. Call Agent.
C. Proxy Server.
D. Direct Server
E. Redirect Server.

Answer: A C E

QUESTION 116
A gatekeeper must be capable to provide a number of setup/control services. Which of the following services should a H.323 gatekeeper provide? (Choose all that apply.)

A. bandwidth control
B. address translation
C. routing control
D. call routing
E. admission control

Answer: A B E

QUESTION 117
Why does it make economic sense to make a transition to a Voice over Data network?

A. Reduced hardware cost.
B. Reduced call connection time.
C. Reduced complexity.
D. Reduced long distance call expenses.
E. Reduced WAN bandwidth requirements.

Answer: C

QUESTION 118
Which of the following types of switches do you have to upgrade when you survey an existing data network to see if it can support IP telephony?

A. That does not support STP.
B. That does not support Layer 3 Services.
C. That does not support in-line power.
D. That does not support TCP/IP
E. That does not support Gigabit Ethernet.

Answer: C

QUESTION 119
Which of the following are components of a delay budget in an IP telephony environment? (Choose all that apply.)

A. Variable delay.
B. Dynamic delay
C. Fixed delay.
D. Static delay
E. All of the above

Answer: A C

QUESTION 120
Which of the following will have echo as a result?

A. Oversubscription.
B. Propagation delay.
D. Translation delay
E. Large Packets on slow links.

Answer: C

QUESTION 121
What component of Enhanced 911 will provide specific location data, such as a street
address as well as subaddress (e.g. on office number)?

A. LEC
B. RST
C. ALI
D. PSAP
E. MLTS

Answer: C

QUESTION 122
DSPs can provide which of the following resources? (Choose all that apply.)

A. transcoding
B. transponding
C. conferencing
D. translating
E. Music On Hold (MOH)

Answer: A C

QUESTION 123
Which of the following can be regarded as an advantage of the MGCP architecture?

A. Stateful endpoints for rapid failover
B. Gateways can route calls in the absence of a call agent.
C. Centralized dial plan
D. Stateless endpoints for rapid failover
E. Mixed vendor networks are possible as MGCP is an approved standard.

Answer: C

QUESTION 124
You are a network engineer at Certkiller . Your newly appointed Certkiller trainee wants to
which of the following are used in current cost savings discovery. What will your reply be?
(Choose all that apply.)

A. Toll/LEC/Circuit costs for services.
B. Ongoing implementation costs of new equipment.
C. Staffing costs to maintain separate networks.
D. Costs associated with plans for future growth.
E. Site/Power/and cable requirements for existing offices.

Answer: A C E

QUESTION 125
Which of the following codecs is capable of compressing voice down to a rate of 6.5 kbps?

A. G.711
B. G.729a
C. G.723.1
D. G.726.
E. G.729.

Answer: C

QUESTION 126
Which of the following represents the standard analog Fax protocol?

A. T.37
B. T.38
C. T.30
D. FRF. 11.

Answer: C

QUESTION 127
What can you use to transfer signaling information across a WAN when a PBX makes use
of a serial control channel? (Choose all that apply.)

A. CES (For an ATM WAN).
B. OOB-SS7 (For an ATM WAN).
C. NFAS (For a Frame Relay WAN).
D. STUN (For a Frame Relay WAN).

Answer: A D

QUESTION 128
What type of deployment would be best suited for a company that has several buildings on
a single site and all its network connections are within a Local Area Network (LAN)?

A. LAN isolated deployment

B. single site deployment
C. LAN distributed deployment
D. Multiple site deployment
E. WAN centralized deployment

Answer: B

QUESTION 129
What is the maximum amount of users that Cisco CallManager (CCM) V3.1 clusters can accommodate?

A. 2.500
B. 5,000
C. 10,000
D. 20,000
E. 30,000

Answer: C

QUESTION 130
Which of the following are supported by Catalyst 6000 Voice TI and Services Module? (Choose all that apply.)

A. Conference bridging.
B. Supplementary services.
C. Transcoding.
D. Digital TI PSTN and PBX gateway.
E. All of the above.

Answer: A C D.

QUESTION 131
Which of the following protocols are capable of transporting voice packets in a VoIP network?

A. CAS.
B. CCS.
C. RTP.
D. H.323.
E. RAS
F. MGCP.

Answer: C

QUESTION 132
The new Certkiller trainee wants to know what an Erlang is since she was asked to measure

traffic load. What will your reply be?

A. 1000 busy hour call attempts.
B. The total number of calls in a single circuit for one hour.
C. Amount of traffic to load a circuit for one hour.
D. The total number of calls on a circuit.
E. 1000 seconds of calls on the same circuit.

Answer: C

QUESTION 133
AVVID designs require several critical gateway features. Which of the following are such
gateway features? (Choose all that apply.)

A. support supplementary services
B. support in-band DTMF signaling for voice mail systems
C. support for DTMF relay.
D. support failover to a redundant Cisco CallManager (CCM)
E. all of the above.

Answer: A C D

QUESTION 134
Which of the following gateways are used to provide connectivity to a legacy voice mail
system (SMDI) protocol? (Choose all that apply.)

A. Cisco 2600.
B. Catalyst 6000
C. VG200.
D. Cisco 7200.
E. Catalyst 4000.

Answer: A C

QUESTION 135
You are a network engineer at Certkiller . Certkiller has a Cisco CallManager (CCM) 3.3
server that supports 5,000 phones. The company wants a 1:1 deployment option and
purchase six new CCM 3.3 servers.
Once the new servers are added, what will be the maximum number of phones that the
network can support?

A. 10,000
B. 15,000
C. 20,000
D. 25,000
E. 35,000

Answer: A