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The Power of Knowing



Exam : 350-022

Title : CCIE® Written, Service Provider: DSL

Ver : 02.12.07

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**QUESTION 1:**

Exhibit, excerpt from a "show run" display in a Cisco DSLAM.

```
interface ATM 1/1
  no ip address
  atm clock INTERNAL
  no atm ilmi-keepalive
  atm soft-vc 2 32 dest-address
  47.0091.8100.0000.0030.949c.0b81.4000.0c80.8000.00 4 100
```

You work as a network administrator at Certkiller .com. Referring to the output in the exhibit, what is true?

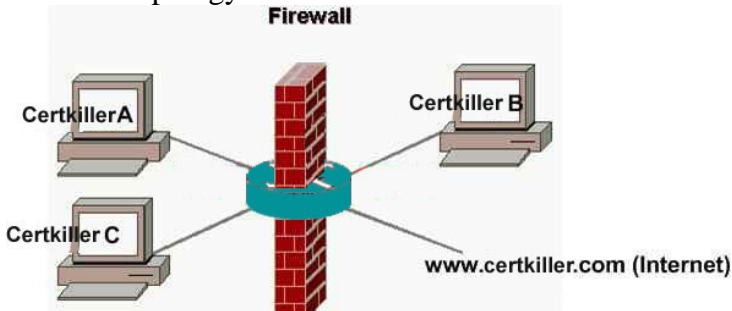
- A. The CPE DSL modem is using ATM VPI 2, VCI 32.
- B. The CPE DSL modem is using ATM VPI 4, VCI 100.
- C. The "dest-address" is the ATM NSAP address in the CPE DSL modem.
- D. The destination address can be reached via AM VPI 2, VCI 32.

Answer: A

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**QUESTION 2:**

Network topology exhibit



You work as a network engineer at Certkiller .com. You troubleshoot a connectivity problem between Hosts Certkiller A and Certkiller B. The following conditions exist:

1. Host Certkiller A can ping the firewall, but cannot ping host Certkiller B
2. Host Certkiller B can both the firewall and www. Certkiller .com
3. The firewall can ping www. Certkiller .com
4. Host Certkiller C can ping the firewall and www. Certkiller .com
5. Host Certkiller A and Host Certkiller C have the same permissions on the firewall.

What is the most likely problem?

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

Answer: B

---

**QUESTION 3:**

Exhibit

```
S* 0.0.0.0/0 [1/0] via 172.31.116.65
D 172.16.0.0/24 [90/48609] via 10.1.1.1
R 172.16.0.0/16 [120/4] via 192.168.1.4
```

You work as a network technician at Certkiller .com. A router has the above routes listed in its routing table and receives a packet destined for 172.16.0.45. What will happen?

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

Answer: C

---

**QUESTION 4:**

Exhibit, Cisco DSLAM configuration

```
interface ATM 1/1
 no ip address
 dsl profile basic
 no atm ilmi-keepalive
 atm pvc 2 32 interface ATM0/1 1 32
```

Exhibit, Configuration of a Cisco 2600 router with an ADSL WIC installed.

```
interface ATM 0/01 point-to-point
 ip address 192.168.1.2 255.255.255.0
 pvc 1/32
 protocol ip 192.168.1.1 broadcast
 encapsulation aal5snap
```

You work as a network engineer at Certkiller .com. The CPE is connected to DSLAM DSL port 1/1 via a DSL line. The subscriber's DSL service is not working correctly. Based on the information shown in these two "show run" output messages, what is the subscriber's trouble symptom?

- A. The ADSL WIC will not train up to the DSLAM
- B. The subscriber can access the internet, but the data throughput is slower than it should be.
- C. The ADSL WIC will train up to the DSLAM, but the subscriber can not access the internet.

D. The subscriber can only access destination hosts on network 192.168.1.0

Answer: A

---

**QUESTION 5:**

You work as a network technician at Certkiller .com. A DSL modem will not train up. It is on a "shared line" (DSL and POTS), and the telephone on the shared line is working normally. Nine of the conditions are possible causes of the symptom, and one is not. What is NOT a possible cause of the problem?

- A. A defective DSL line card in the DSLAM
- B. A defective DSL CPE modem
- C. An open (cut or broken) tip or ring lead on the phone line between the customer premises and the telco C.O
- D. The DSL port in the DSLAM is in "shutdown" state.
- E. The DSL port in the CPE DSL modem is in "shutdown" state.
- F. The DSL operating mode in the DSLAM does not match the operating mode of the CPE DSL modem.
- G. A loose cable between the telco POTS splitter and DSLAM
- H. A loose or broken connection between the DLS modem and the telephone line
- I. An incorrectly connected POTS splitter between the DSL modem and the telephone line
- J. A DSL microfilter was accidentally installed in the DSL line between the DSL modem and the DSL line

Answer: C

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**QUESTION 6:**

Your boss at Certkiller .com is curious about DSL. The following are distances used in telephone company cables.

Which will allow the greatest "reach" (distance) in DSL service?

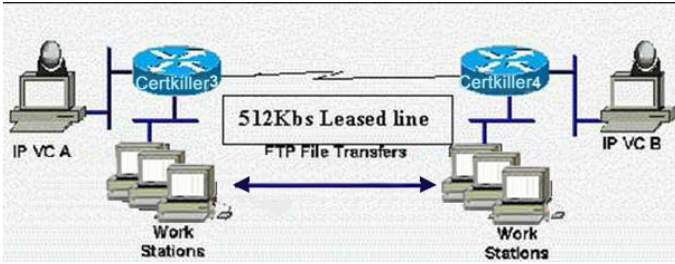
- A. 24 AWG (0.5 mm)
- B. 26 AWG (0.5 mm)
- C. A line is 50% of #24 (0.5 mm) and 50% of #26 (0.4mm)
- D. None of the above will allow enough reach for DSL service

Answer: A

---

**QUESTION 7:**

Network topology exhibit



You work as a network technician at Certkiller .com. Assume IP Videoconference station A places a 384 Kb call to IP Videoconference Station B and the Workstations are transferring files bank and forth between themselves during the same time period.

What Cisco feature should be used on the both Routers Certkiller 3 and Certkiller 4 to avoid unwanted jitter and guarantee the videoconference will get enough bandwidth for the duration of the call?

- A. Frame Relay Traffic Shaping (FRTS) with FRF 12 packet fragmentation
- B. Generic Traffic Shaping (GTS) with FECN Rate Adaption activated
- C. Bandwidth Guarantee for Videoconferencing (BGV)
- D. Resource Reservation Protocol (RSVP)
- E. Weighted Fair Queuing (WFQ) with IP Precedence

Answer: D

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### QUESTION 8:

In DMT DSL transmission systems, what is the effect of turning off half of the available downstream carriers (tones)?

- A. The downstream DSL bandwidth is reduced
- B. The downstream line rate and throughput remains unchanged, but FEC efficiency is reduced.
- C. The upstream DSL bandwidth can be increased, since more carriers become available for upstream traffic.
- D. Downstream RS error correction effectiveness is reduced.

Answer: A

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### QUESTION 9:

The major difference between DMT and CAP is:

- A. CAP uses a single center frequency, DMT is multiple-carrier
- B. DMT is single-carrier, CAP is multiple-carried
- C. CAP is used in IDSL; DMT is used in ADSL
- D. DMT is used in VDSL; CAP is used in ADSL
- E. CAP is used in ADSL; DMT is used in SDSL

Answer: A

**QUESTION 10:**

Your boss at Certkiller .com is curious about DSL. What does the TCP PUSH flag indicate?

- 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. The session is about to end.

Answer: A

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**QUESTION 11:**

Your boss at Certkiller .com is curious about DSL. What is true concerning interleaved versus fastpath mode in DMT DSL service?

- A. Fastpath mode allows higher DSL rates.
- B. Interleaved mode allocates traffic to more than one ATM PVC
- C. Interleaved mode allows greater forward error correction (FEC).
- D. Fastpath mode gives data precedence over voice traffic.

Answer: C

---

**QUESTION 12:**

Your boss at Certkiller .com is curious about DSL. What is the use of a VC class in IOS configuration?

- A. It defines a template for virtual circuits which can be applied to a(sub)interfaces such that all PVCs on that (sub)interface which will inherit the configuration from that template.
- B. It defines various priorities for the PVCs to enable priority queuing of cells transmitted on a sub(interface).
- C. It is another name for Virtual Paths.
- D. It is used to classify incoming cells on a physical interface as CBR/ABR/ and UBR traffic.
- E. It defines a template for switching ATM pvcs from one interface to another.

Answer: A

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**QUESTION 13:**

You work as a network administrator at Certkiller .com. A DSL subscriber reports that the CPE modem untrains and retrains several times each hour, but tot at regular intervals. The subscriber has a DMT modem operating on 10 kft of #26 cable (3 km of 0.4 mm cable).

The provisioned downstream rate is 2 mbps, and the provisioned upstream rate is 256 kbps. When the modem retrains, the downstream DLS may be as low as 512 kbps. Sometimes manually retraining the modem allows it to return to a 2 mbps line rate, and sometimes manually retraining the modem does not improve the DSL line rate. Which options would cause the intermittent train/untrain symptom as described? Select two

- A. A telephone on the same phone line was installed without a microfilter. When the telephone handset is take off-hook, the phone causes excessive attenuation of the DSL frequencies and the resulting high error rate results in a retrain. Because of the degraded signal levels while the phone is off-hook, the modem can not retrain at 2 mbps.
- B. There is an interfering signal in the same cable. When the interfering signal is present, an excessive error rate results. The modem retrains at a lower line rate in order to recover an acceptable noise margin and error rate.
- C. The noise margin was incorrectly set too high. Reducing the noise margin will correct the symptom.
- D. ADSL DMT will not permit 2 mbps downstream rates at 10 kft of #26 cable (3 km of 0.4 mm cable). ADSL 2 megabit service will always be unreliable and intermittent on this cable length and wire size.
- E. The DMT profile is using interleaved mode. Changing to fastpath will correct the symptom.
- F. The ATM QoS is UBR, and the subscriber's traffic is yielding to VBR or CBR traffic.

Answer: A, B

---

**QUESTION 14:**

Your boss at Certkiller .com is curios about DSL. What is true concerning fastpath versus interleaved mode in DMT DLS service?

- A. Fastpath mode provides lower latency (delay) than interleaved mode.
- B. Fastpath mode allows higher DSL trained rates.
- C. Fastpath mode allows higher effective throughput on noisy transmission lines.
- D. Interleaved mode ensures that all provisional ATM PVCs on a DSL line are given equal bandwidth.

Answer: A

---

**QUESTION 15:**

Your boss at Certkiller .com is curios about DSL. 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 16:**

Your boss at Certkiller .com is curious about DSL. What is the effect of changing DMT interleaved delay from 16 milliseconds to 2 milliseconds?

- A. Fewer ATM PVCs can be provisioned on the DSL line.
- B. Latency is reduced, but error correction effectiveness may also be reduced.
- C. Latency remains the same, but faster error correction occurs.
- D. Latency remains the same, but throughput is increased

Answer: B

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**QUESTION 17:**

Your boss at Certkiller .com is curious about DSL. What ADSL DMT line rate requires (occupies) the most bandwidth on a telephone line?

- A. 8 mbps downstream, 800 kbps upstream on 1 kft (300 meters) of cable.
- B. 8 mbps downstream, 800 kbps upstream on 9 kft (2.75 km) of cable.
- C. 1 mbps downstream, 256 kbps upstream on 1 kft (300 meters) of cable.
- D. 512 kbps downstream, 128 kbps upstream on 17 kft (5.2 km) of cable.

Answer: A

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**QUESTION 18:**

You work as a network engineer at Certkiller .com. A DMT DSL modem is working on a "shared line" with standard telephone service (POTS). When the subscriber picks up the telephone handset, the DSL modem untrains, then retrains at a lower DSL rate. When the telephone is not off-hook, the DSL modem will train at the subscribed rate (normal operation).

Which of the following is the probably cause of this symptom?

- A. An improper DSL line rate was provisioned for shared lines.
- B. A microfilter or splitter was not correctly installed between the telephone and the line.
- C. The noise level on the telephone line will not allow DSL and POTS voice at the same time.
- D. An incorrect DMT operating mode was provisioned in the DSLAM.

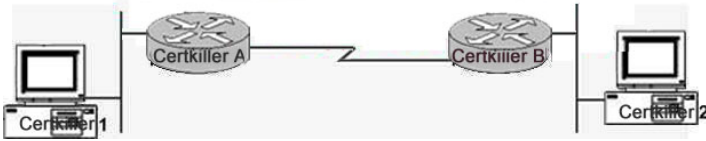
Answer: B

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**QUESTION 19:**



Network topology exhibit



You work as a network engineer at Certkiller .com. Host Certkiller 1 and Host Certkiller 2 are on Ethernet LANs in different buildings. A serial line is installed between two Cisco routers using Cisco HDLC serial line encapsulation. Routers Certkiller A and Certkiller B are configured to route IP traffic. Host Certkiller 1 sends a packet to Host Certkiller 2. A line hit on the serial line causes an error in the packet.

When this is detected, the retransmission is sent by:

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

Answer: A

---

**QUESTION 20:**

Exhibit

```
DSL Statistics:
Init Events:                2
Transmitted Superframes:   near end: 93681573   far end: 0
Received Superframes:     near end: 93516422   far end: 0
Corrected Superframes:    near end: 142631   far end: 31571
Uncorrected Superframes:  near end: 191     far end: 1
LOS Events:                near end: 0       far end: 0
LOF/RFI Events:           near end: 0       far end: 0
ES Events:                 near end: 5       far end: 1
```

You work as a network engineer at Certkiller .com. A DSLAM is using Reed-Solomon forward error correction on a DMT DSL line. The DSL service is using TCP/IP over ATM over DSL. A high number of upstreams RS uncorrected errors are occurring on the DSL line, as reported by the DSLAM in the status message shown in the exhibit.

What is the result of the uncorrected errors?

- A. The DSL frames will be continuously retransmitted by the DSL transceivers until an error-free frame is received.
- B. If errors on the DSL line can not be corrected by the RS algorithm, the line will be automatically taken out of service.
- C. The errored data resulting from uncorrected layer-1 errors will be handled by TCP.
- D. When Reed-Solomon forward error correction is used, all errors are corrected at layer 1. The uncorrected state was present only until forward error correction algorithms corrected the errors.

Answer: C

**QUESTION 21:**

Your boss at Certkiller .com is curious about DSL. In ADSL DMT systems, the highest downstream transmit power occurs at what rate/each combinations?

- A. 384 kbps at 17 kft (5.1 km)
- B. 8 mbps at 1 kft (305 meters)
- C. 1 mbps at 9 kft (2.75 km)
- D. 8 mbps at 9 kft (2.75 km)

Answer: B

---

**QUESTION 22:**

Your boss at Certkiller .com is curious about DSL. Which DSL modulation types allows line sharing (DSL and POTS voice on the same line)?

- A. G.SHDSL, IDSL, and DMT
- B. CAP and DMT
- C. DMT and G.SHDSL
- D. IDSL and SDSL

Answer: B

---

**QUESTION 23:**

Your boss at Certkiller .com is curious about OSPF. 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.
- 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 24:**

Your boss at Certkiller .com is curious about DSL. What is the difference between AAL5 SNAP and AAL5 MUX virtual circuits?

- A. AAL5 SNAP is used to carry IP packets embedded in PPP encapsulation and AAL5 MUX is used to carry raw IP data.
- B. SNAP allows multiplexing of multiple protocols over a single VC, while AAL5 MUX can

carry only one protocol per VC.

C. SNAP VCs define real time data and MUX VC defines mixed (real time and non real time) data

D. SNAP VCs are used inside public carrier network while MUX VCs are used on the edge.

E. None of he above.

Answer: B

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**QUESTION 25:**

Your boss at Certkiller .com is curios about DSL. What is the 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 FastEthernet

Answer: D

---

**QUESTION 26:**

Your boss at Certkiller .com is curios about DSL. What effect do load coils in a telephone line have on DSL service?

A. Load coils cause low trained rates for ADSL (CAP or DMT), but do not degrade SDSL, SHDSL, or IDSL transmission.

B. Load coils in the telephone line can prevent any DSL modem from training up to an ATU-C port.

C. Load coils cause low upstream rates, but do not degrade downstream rates.

D. Load coils cause low downstream rates, but do not degrade downstream rates.

E. Load coils cause low trained rates for SDSL, SHDSL, or IDSL, but do not degrade ADSL (CAP or DMT) transmission.

Answer: B

---

**QUESTION 27:**

Exhibit

```
DSLAM#show dshint atm 1/1

DMT profile parameters
Maximum Bitrates:
  Interleave Path: downstream: 2048 kb/s, upstream: 256 kb/s
  Fast Path:      downstream: 0 kb/s, upstream: 0 kb/s
Minimum Bitrates:
  Interleave Path: downstream: 0 kb/s, upstream: 0 kb/s
  Fast Path:      downstream: 0 kb/s, upstream: 0 kb/s
Margin:          downstream: 6 dB, upstream: 6 dB
Interleaving Delay: downstream: 16000 usecs, upstream: 16000 usec
Check Bytes (FEC):
  Interleave Path: downstream: 16, upstream: 16
  Fast Path:      downstream: 0, upstream: 0
R-S Codeword Size: downstream: auto, upstream: auto
Trellis Coding:   Disabled
Overhead Framing: Mode 3
Operating Mode: Automatic
Training Mode:    Quiet
Minrate blocking: Disabled
SNR Monitoring:   Disabled
```

```
Status:
Bitrates:
  Interleave Path: downstream: 640 kb/s, upstream: 256 kb/s
  Fast Path:      downstream: 0 kb/s, upstream: 0 kb/s
Margin:          downstream: 6 dB, upstream: 9 dB
Attenuation:     downstream: 45 dB, upstream: 31 dB
Interleave Delay: downstream: 16000 usecs, upstream: 16000 usec
Transmit Power:  downstream: 19.4 dB, upstream: 12.0 dB
Check Bytes (FEC):
  Interleave Path: downstream: 16, upstream: 16
  Fast Path:      downstream: 0, upstream: 0
R-S Codeword Size: downstream: 1, upstream: 8
Trellis Coding:   Not In Use
Overhead Framing: Mode 3
Line Fault:      NONE
```

You work as a network technician at Certkiller .com. A DSL customer has subscribed to a service that provides 2 mbps downstream and 256 kbps upstream. The cable length is 10 kft (3 km). The customer reports that file transfers on the DSL line seem slower than normal in recent days. After viewing the DSL profile parameters for the DSL port, and the actual status of the line, what is the possible reason why the subscriber's data rates are slower than usual?

- A. The signal-to-noise margin on the line will not allow downstream DSL rates faster than 640 kbps. If the subscriber's service was in fact faster at some time, then something has changed in the line characteristics or noise spectrum.
- B. The subscriber is provisioned for 640 kbps downstream, and the service appears to be working normally. The problem is apparently not related to the DSL (physical layer) part of the service
- C. The service is running in G:DMT, and 640 kbps is normal for the subscriber's cable length. Change the mode to ANSI T1.413 for faster rates.
- D. The DSL profile is set for 16 milliseconds interleave delay. Change the interleave delay to 0, or change the profile to fastpath for faster line rates

Answer: A

---

### QUESTION 28:

You work as a network technician at Certkiller .com. A subscriber complains that his DSL rates are slower than the service he ordered. The customer ordered ADSL at 1 mbps

downstream and 256 kbps upstream, but the maximum bitrate observed during file downloads is 100 kbps downstream.

Of the following four choices, which is clearly the most appropriate information needed to begin troubleshooting the problem?

- A. The software version running in the DSLAM.
- B. The FEC parameters for the subscriber's ADSL port in the DSLAM
- C. The actual DSL rate rate that is reported when the DSL line is trained
- D. The manufacturer and model of ADSL CPE that is used

Answer: C

---

**QUESTION 29:**

Your boss at Certkiller .com is curious about DSL. What best describes RADSL?

- A. The DSL line trains at the highest rate possible, limited mainly by line conditions and provisioning options.
- B. The DSL line rate (bandwidth) is automatically increased when data queues are filled to a predetermined threshold.
- C. The DSL line rate remains constant while noise margins are automatically adjusted.
- D. The DSL modems detect the presence of CAP, DMT, SDSL, or G.SHDSL modulation at the receiver input and automatically select the appropriate mode to transmit.

Answer: A

---

**QUESTION 30:**

Your boss at Certkiller .com is curious about DSL. What statement is incorrect?

- 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: A

---

**QUESTION 31:**

Your boss at Certkiller .com is curious about DSL. 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 32:**

Your boss at Certkiller .com is curious about DSL. IDSL and SDSL use what line coding scheme?

- A. B8ZS
- B. 2B1Q
- C. QAM
- D. CAP
- E. DMT

Answer: B

---

**QUESTION 33:**

Your boss at Certkiller .com is curious about DSL. What is not an ATM class of service?

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

Answer: E

---

**QUESTION 34:**

Exhibit

```
version 11.2
!
!hostname: certkiller3
!
boot system flash slot0:rsp-isv-mz.112-8.P
enable password Certkillerpwd
```

You work as a network technician at Certkiller .com. You examine the router configuration in the exhibit. If this router has a configuration-register setting of 0x102, select the proper boot sequence:

- A. The router will try to use the image "rsp-isv-mz.112-8:P" on slot 0, then attempt to boot from a network server, and finally boot from ROM.

- B. The router will try to use the image "rsp-isv-mz.112-8:P" on slot 0, then attempt to boot from any other valid image in flash, and finally boot from ROM.
- C. The router will try to use the image "rsp-isv-mz.112-8:P" on slot 0, then attempt to boot from ROM.
- D. The router will try to use the image "rsp-isv-mz.112-8:P" on slot 0, then attempt to boot from a network server.

Answer: A

---

**QUESTION 35:**

Your boss at Certkiller .com is curious about DSL. 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 36:**

Your boss at Certkiller .com is curious about DSL. What VCI value is reserved for PNNI ATM routing?

- A. 5
- B. 16
- C. 18
- D. 22
- E. 31

Answer: A

---

**QUESTION 37:**

You work as a network technician at Certkiller .com. The telephone company has placed a bridge-tap (half-tap) on all the pairs in a cable in preparation to reroute the cable. DSL customers are served by this cable. Three of the following statements are correct. Which three of the following statements describes the possible effect of placing bridge-taps on a DLS line? Select three

- A. It may not cause a problem, depending on the location and length of the half taps.
- B. It can cause the DSL modems to train at lower line rates.
- C. It will degrade upstream rates (lower frequencies), but will not degrade downstream rates (higher frequencies).

- D. DSL modems operating at 15 kft (4.5 km) of cable may not train after the bridge-taps are installed.
- E. Bridge-taps will not cause a problem for DSL service unless a telephone or modem is connected at the end of the new cable (half-tap) section, or unless the new section is shorted.

Answer: A, B, D

---

**QUESTION 38:**

Your boss at Certkiller .com is curious about DSL. What will significantly degrade DSL performance, regardless of DSL rate or line length?

- A. POTS splitters at the subscriber's end of the DSL line
- B. POTS splitters at telco C.O
- C. Microfilters installed between a telephone and shared line
- D. Radio-frequency filters on the telephone line

Answer: D

---

**QUESTION 39:**

Your boss at Certkiller .com is curious about DSL. What is the ATM Transmission Convergence Sublayer NOT responsible for?

- A. Cell delineation
- B. Header error control sequence generation and verification
- C. Cell rate decoupling
- D. Transmission frame adaptation
- E. Fast ReRoute

Answer: E

---

**QUESTION 40:**

Your boss at Certkiller .com is curious about DSL. How long is an ATM call header?

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

Answer: A

---

**QUESTION 41:**

Your boss at Certkiller .com is curious about DSL. 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 42:

Exhibit, configuration

```
vpdn enable
vpdn-group 1
 request-dialin
 protocol pppoe
 virtual-template 2
!
interface atm 2/0 0 point-to-point
 pvc 0/101
  encapsulation aal5snap
  protocol pppoe
!
interface atm 2/0 2 point-to-point
 pvc 0/102
  encapsulation aal5snap
  protocol pppoe
!
interface atm 2/0 0 2 point-to-point
 pvc 0/102
  encapsulation aal5snap
  protocol pppoe
!
interface atm 2/0 3 point-to-point
 pvc 0/103
  encapsulation aal5snap
  protocol pppoe
!
interface virtual-template 2
 ip unnumbered FastEthernet 4/0
!
interface FastEthernet 4/0
 ip address 172.22.32.1 255.255.255.0
```

You work as a network administrator at Certkiller .com. What is the problem with this configuration (see exhibit)?

- A. The ATM subinterfaces cannot be defined point to point.
- B. The encapsulation on the PVCs should be aal5mux
- C. The VPDN-group definition should have the command 'accept-dialin' instead of the command 'request-dialin'.
- D. A static IP address should be configured on the virtual template.
- E. The virtual template number should be the same as the VPDN-group number.

Answer: B

---

### QUESTION 43:

Your boss at Certkiller .com is curious about DSL. 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 44:**

Your boss at Certkiller .com is curious about DSL. In the Internet core, routers communicating over ATM typically use

- A. SVCs
- B. HFCs
- C. PVCs
- D. SUVs
- E. None of the above

Answer: C

---

**QUESTION 45:**

Your boss at Certkiller .com is curious about DSL. What Q.931 message cannot be received in response to sending a Q.931 SETUPmessage?

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

Answer: E

---

**QUESTION 46:**

Your boss at Certkiller .com is curious about DSL. What command shows the number and type of cards in the 6160.DSLAM?

- A. Show cards
- B. Dspcds
- C. Show hardware
- D. Show dsl profile
- E. Show run

Answer: C

---

**QUESTION 47:**

Your boss at Certkiller .com is curious about DSL. The two level distribution protocol 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 48:**

You work as a network administrator at Certkiller .com. A DSL subscriber says that his DSL modem is trained at the subscribed rates, 1024 kbps downstream and 256 kbps upstream, but he has no access to the internet. The internet service was working until today. The modem remains trained - it is not dropping train or frequently retraining. Manually retraining the modem does not correct the problem. The customer can ping from his PC to the Ethernet interface on the DSL modem, but not addresses "in the network". Initial troubleshooting shows that the DSL modem can ping the subscriber's PC, but no addresses in the network.

What could cause this problem?

- A. A telephone is connected to the DSL line with no microfilter or splitter installed. The phone is "loading" the line and disrupting DSL service.
- B. The subscriber powered-down the DSL modem, and when it was powered-up it defaulted to G.Lite (G.992.2). The port in the DSLAM is full-rate DMT (G.992.1).
- C. The DSL port in the DSLAM was left in a "shutdown" state by mistake following DSLAM maintenance.
- D. There is a problem with the subscriber's ATM PVC between the DSLAM and ATM switch. An incorrect VCI was assigned between the DSLAM and ATM switch shortly after midnight, during the service provider's network rearrangements.

Answer: D

---

**QUESTION 49:**

Your boss at Certkiller .com is curious about DSL. ATM carries IP and PPP information within ATM cells. What ATM Adaption Layer is used when an ATM cell carries IP packets and PPP frames?

- A. AAL1

- B. AAL2
- C. AAL3
- D. AAL4
- E. AAL5

Answer: E

---

**QUESTION 50:**

Exhibit, configuration

```
interface atm 0/00
encapsulation aal5 max ppp virtual-template 1
interface atm 0/0/0.10 multipoint
pvc 0/100
exit
pvc 0/101
encapsulation aal5snap
```

You work as a network technician at Certkiller .com. The configuration shown in the exhibit is entered on an ATM interface. What will the encapsulation type for the PVCs be?

- A. PVC 0/100 will have encapsulation type MUX PPP, and PVC 0/101 will have encapsulation type SNAP.
- B. Both PVC 0/100 and PVC 0/101 will have encapsulation type MUX PPP.
- C. PVC 0/100 will have encapsulation type UNDEFINED, and PVC 0/101 will have encapsulation type SNAP.
- D. Both PVC 0/100 and PVC 0/101 will have encapsulation type SNAP.
- E. The above configuration is invalid.

Answer: D

---

**QUESTION 51:**

Your boss at Certkiller .com is curious about DSL. 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 is valid to route between VLANs.
- C. It is permissible to bridge inside a VLAN, but to route between VLANs.
- D. It is permissible to bridge inside a VLAN, but to route between VLANs.

Answer: A

---

**QUESTION 52:**

You work as a network technician at Certkiller .com. While entering commands on a console, the break key is pressed accidentally and the router reboots.

What action should disable this problem?

- A. In configuration mode, enter disable break
- B. In configuration mode, enter no service break
- C. Change the configuration register.
- D. Replace the router - this is an invalid response to pressing the break key when past 60 seconds after boot.

Answer: C

---

**QUESTION 53:**

Your boss at Certkiller .com is curious about DSL. What signaling protocol does Cisco use to provide support for MPLS traffic engineering?

- A. RSVP
- B. LDP
- C. SS7
- D. TDP

Answer: A

---

**QUESTION 54:**

Your boss at Certkiller .com is curious about DSL. 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: B

---

**QUESTION 55:**

Exhibit:  
interface ATM0/0/0  
no ip address  
atm vc-per-vp 2048  
no atm ilmi-keepalive

You work as an administrator at Certkiller .com. You are unable to configure a PVC with the value of 8/49. You examine the running config and notice the following entry for the interface you are working on (See exhibit).

What is the likely cause of the problem?

- A. ILMI has timed out without keepalives.
- B. The config is flin; the NSP must be the source of the problem.
- C. An IP address is required to turn up PVCs.
- D. The interface is shutdown.
- E. Too many bits have been assigned to the VCs reducing the possible values of the VP.

Answer: E

---

**QUESTION 56:**

You work as a network technician at Certkiller .com. A PVC has been configured on the 6400 NRP as follows:

```
pc 1/10
encapsulation aal5mux ppp virtual-template 1
ubr 384
```

What does the command "ubr 384" accomplish?

- A. Mean Bandwidth of 384 kilobits per second
- B. Minimum Bandwidth of 384 kilobits per second
- C. Peak Bandwidth of 384 kilobits per second
- D. Mean Bandwidth of 384 kilobytes per second
- E. Does not affect PVC cell rate. It is a descriptive command.

Answer: C

---

**QUESTION 57:**

You work as a network technician at Certkiller .com. A router interface address is 180.60.45.96 with a mask of 255.255.255.224.

What configuration statement will allow this interface to participate in OSPF Area 0?

- A. router ospf 1  
network 180.60.45.96 255.255.255.32 area 0
- B. router ospf 1  
network 180.60.45.96 0.255.255.224 area 0
- C. router ospf 1  
network 180.60.45.96 0.0.0.31 area 0
- D. router ospf 1  
network 180.60.45.96 0.0.0.224 area 0

Answer: C

---

**QUESTION 58:**

You work as a network administrator at Certkiller .com. A router is receiving updates for a subnet from different routing protocols. You wish to take advantage of a path via a route

with a less favorable Administrative Distance.

What can be done to affect 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

**QUESTION 59:**

Exhibit, CISCO DSLAM message

```
stat
  Bitrates:
    Interleave Path:  downstream: 2048 kb/s,  upstream: 256 kb/s
    Fast Path:       downstream:  0 kb/s,   upstream:  0 kb/s
  Margin:         downstream:  18 dB,    upstream:  22 dB
  Attenuation:    downstream:  30 dB,    upstream:  20 dB
  Interleave Delay: downstream: 16000 usecs, upstream: 16000
use
  Transmit Power:  downstream: 16.0 dB,  upstream:  0.0 dB
  Check Bytes (FEC):
    Interleave Path: downstream: 16,  upstream: 16
    Fast Path:       downstream: 0,  upstream: 0
  R-S Codeword Size: downstream: 1,  upstream: 8
  Trellis Coding:   Not In Use
  Overhead Framing: Mode 3
  Operating Mode:   ANSI T1 413 Issue 2
  Line Type:        Interleaved Only
```

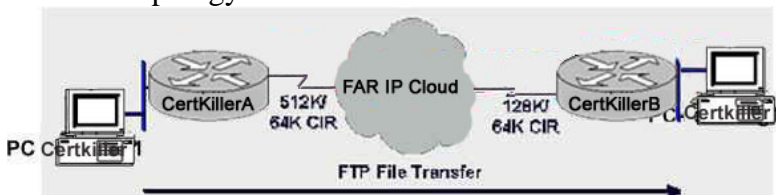
You work as a network technician at Certkiller .com. The information presented in the exhibit is a result of which command?

- A. show dsl status atm 1/1
- B. show interface atm 1/1
- C. show dsl interface atm 1/1
- D. show dsl profile atm 1/1

Answer: C

**QUESTION 60:**

Network topology exhibit



You work as a network technician at Certkiller .com. Router Certkiller A has a 512K-access port into the frame relay cloud. Router Certkiller B 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 Router Certkiller A to prevent PC Certkiller 1 from overrunning the access port on Router Certkiller B?

- 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 61:**

Your boss at Certkiller .com is curious about DSL. The ATU-C refers to the

- A. CPE
- B. Modem
- C. Attachment Unit for Consumer
- D. Port on the DSLAM
- E. Line splitter

Answer: D

---

**QUESTION 62:**

Your boss at Certkiller .com is curious about DSL. 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: B

---

**QUESTION 63:**

You work as a network engineer at Certkiller .com. 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 64:**

Your boss at Certkiller .com is curious about DSL. What network is a supernet?

- A. 134.176.64.0 255.255.192.0
- B. 16.0.1.0 255.255.255.0
- C. 134.176.0.16 255.255.255.240
- D. 195.97.16.0 255.255.254.0

Answer: D

---

**QUESTION 65:**

Exhibit, configuration

```
certkiller lab-8510>sh bootflash
-#- ED --type-- --crc--- -seek  nlen  iengt...  date/time..... name
 1  .. unknown 9DA13DA5 3576AC 31 3241516 Aug 22 1998 08:34:22 cat8510c-in
 2  .D unknown BCDE134F 453BA3 22 2494584 Jul 20 1997 09:33:02 cat8510b-in
```

You work as a network technician at Certkiller .com. Upon deleting an IOS image from flash, execution of show flash shows the file still in flash,m 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 66:**

Your boss at Certkiller .com is curious about DSL. What is the purpose of the following command?

```
virtual-template {template-number}pre-clone{number}
```

- A. Used in a PPPoA environment, it will improve the memory utilization by decreasing the number of dynamic interfaces created.
- B. Used in either a PPPoA or PPPoE environment, it will decrease the time need to boot the NRP by creating needed access interfaces before they are needed.
- C. Used in a PPPoE environment, it will increase the time needed for a user to connect to the

NRP by allocating access interfaces at boot time.

D. Used in a PPPoE environment, it will pre-create a defined number of dynamic access interfaces to reduce the load on the NRP during times of peak user logins.

E. Used in either a PPPoA or PPPoE environment, it will increase the initial load on the NRP

Answer: D

---

**QUESTION 67:**

Your boss at Certkiller .com is curious about DSL. G.Lite is identified in what standard?

A. ITU G.992.1

B. ANSI T1E1.4

C. ITU G.992.2

D. ANSI T1.601

E. ANSI T1.413

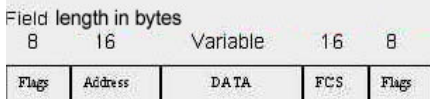
Answer: C

---

**QUESTION 68:**

Exhibit:

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



Your boss at Certkiller .com is curious about DSL. The address field contains... (choose three.)

A. The DLCI Value

B. The extended Address (EA)

C. Congestion Control

D. FCS

Answer: A

---

**QUESTION 69:**

Your boss at Certkiller .com is curious about DSL. The field of an ATM address that states what type of address is being used is:

A. AA

B. RD

C. AFI

D. DCC

E. ICD

Answer: C

---

**QUESTION 70:**

**Exhibit**

```
Interface FastEthernet 0/0/0
ip address 192.168.1.1 255.255.255.0
|
interface ATM 0/0/0.30 multipoint
pvc 1/43
encapsulation aal5cisco ppp Virtual-Template 2
|
|
interface Virtual-Template 2
ip unnumbered FastEthernet 0/0/0
no peer default ip address
ppp authentication pap chap
ppp ipcp mask 255.255.255.224
|
```

You work as a network technician at Certkiller .com. Refer to the configuration in the exhibit. A customer connected to PVC 1/43 boots their CPE (PPPoA encapsulation). The Radius server is properly configured and recognizes the customer. The Radius server assigns the FRAM-IP-network 192.168.10.1/29.

What information does the CPE receive from the NRP via PPP IPCP negotiation?

- A. 192.168.10.1 IP address, subnet mask 255.,255.255.248
- B. 192.168.10.1 IP address, subnet mask 255.,255.255.224
- C. 192.168.1.1 IP address, subnet mask 255.,255.255.224
- D. 192.168.1.1 IP address, subnet mask 255.,255.255.248
- E. 192.168.1.1 IP address, subnet mask 255.,255.255.0

Answer: A

---

**QUESTION 71:**

Your boss at Certkiller .com is curious about DSL. An architecture that utilizes PPPoA deals with IP address allocation by what type of negotiation.

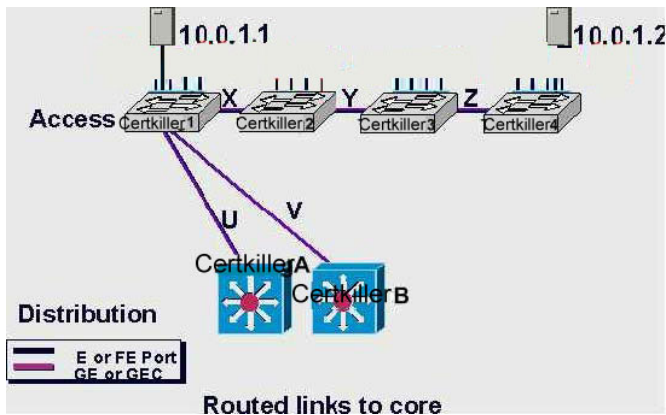
- A. DHCP
- B. LDAP
- C. IPCP
- D. RADIOUS
- E. NIS

Answer: C

---

**QUESTION 72:**

Network topology exhibit



You work as a network engineer at Certkiller .com. The exhibit shows a wiring closet stack of four L2 switches Certkiller 1, Certkiller 2, Certkiller 3, and Certkiller 4. Certkiller 1, Certkiller 2, Certkiller 3, and Certkiller 4 are connected in series. Switch Certkiller 1 is the root switch and connects to Certkiller A and Certkiller B. There are no loops in the wiring closet VLAN (=subnet). The architect wants to remove X, Y, and Z, and connect Certkiller 1 directly to Certkiller 2, Certkiller 3, and Certkiller 4 in a star.

You are required to give an opinion on this idea. Is it a good idea?

- A. Yes, because packets from Certkiller 2 to host 10.0.1.2 will take fewer L2 hops.
- B. Yes, because with Certkiller 1, Certkiller 2, Certkiller 3, and Certkiller 4 in series, link Z will become a bottleneck.
- C. No, because switch Certkiller 1 will become a bottleneck.
- D. No, because Certkiller A must be replaced by a L3 switch.
- E. No, because it will create a STP loop.

Answer: C

### QUESTION 73:

Your boss at Certkiller .com is curious about DSL. 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 74:

Your boss at Certkiller .com is curious about DSL. In Frame Relay, what devices resend packets that do not transmit correctly?

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

Answer: B

---

**QUESTION 75:**

You work as a network technician at Certkiller .com. A subscriber's DSL service is configured as PPPo

A. The subscriber's DSL modem is trained, but the subscriber can not access the internet (cannot ping network addresses or reach web servers). Initial troubleshooting shows that a PPP session is open (active) in the DSL modem and aggregator.

Based on these conditions and the symptom, what is possible cause of this problem?

- A. An incorrect PVC (VPI/VCI) was provisioned between the DSLAM and the ATM switch.
- B. An incorrect PVC (VPI/VCI) was provisioned between the ATM switch and the router.
- C. An incorrect PVC (VPI/VCI) was provisioned between the DSLAM and the DSL modem.
- D. There is a problem in the physical connection or configuration between the DSL modem and the CPE.

Answer: A

---

**QUESTION 76:**

Your boss at Certkiller .com is curious about DSL. What is not a valid service type between an 827 and a 6400?

- A. PPPoA
- B. HDLC
- C. PPPoE
- D. L2TP
- E. RFC1483

Answer: B

---

**QUESTION 77:**

Your boss at Certkiller .com is curious about DSL. When a subscriber is configured for PPPoE service, the DSL modem is usually configured as:

- A. A basic router (RFC 1483 routing)
- B. A basic bridge (RFC 1483 bridging)
- C. A router configured for PPPoA session termination

D. A router configured for PPPoE session termination

Answer: B

---

**QUESTION 78:**

Your boss at Certkiller .com is curious about DSL. What statement regarding Service Selection Gateway is INCORRECT?

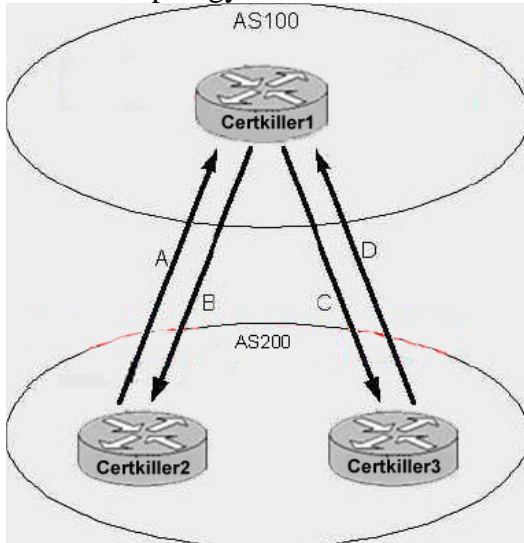
- A. For proxy service, the SSG will proxy the Access-Request to the remote AAA server. Upon receiving an Access-Accept from the remote RADIUS server, the NRP-SSG responds to the subscriber with the Access-Accept.
- B. Transparent passthrough service allows unauthenticated subscriber traffic to be routed through the NRP-SSG in either direction.
- C. For Proxy service, the SSG can perform NAT between the address assigned by the remote server and the subscriber's real IP address.
- D. For non-PPP users, such as those in bridged networks, if the user disconnects from a service without logging off, the connection will remain open and the user can reaccess the service without going through login procedure as long as the session has not timed out.
- E. The PPP Termination Aggregation (PTA) service can be used only in dialup environments and with PPPoE in DSL environments. It cannot be used with PPPoA.

Answer: D

---

**QUESTION 79:**

Network topology exhibit



You work as a network administrator at Certkiller .com. According to the exhibit, 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? 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 preference
- C. Community; Origin
- D. Local preference; MED
- E. Origin; Community

Answer: D

---

**QUESTION 80:**

Your boss at Certkiller .com is curious about DSL. 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 81:**

You work as a network technician at Certkiller .com. Three of the following are common symptoms of a bridge tap ("half tap") on a DSL line. Which three are symptoms that result from placing a bride tap on a DSL line? Select three.

- A. The line may not train
- B. The DSL service will interfere with telephone (POTS) service on the same line
- C. DSL line rates will be lower than expected (lower than provisioned)
- D. The line may have degraded DSL service, the POTS service may appear normal

Answer: A, C, D

---

**QUESTION 82:**

Your boss at Certkiller .com is curious about DSL. 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 83:**

You work as a network technician at Certkiller .com. A DSL line status report shows a high number of corrected and uncorrected errors. The line is configured at 4 milliseconds interleave delay and 4 FEC check-bytes. To reduce the number of uncorrected errors without a detailed analyses of whether the errors are continuous or "bursty", which of the following should provide improved error correction?

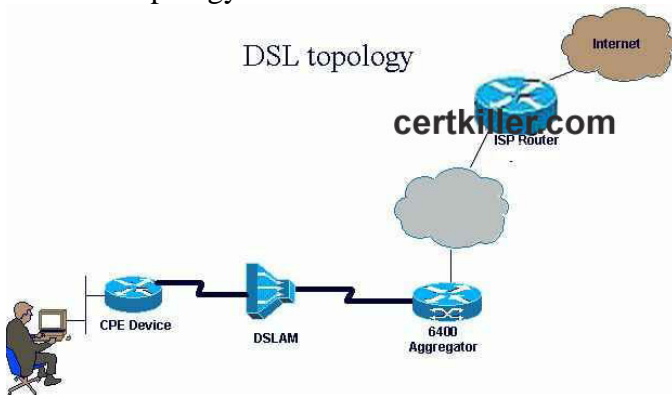
- A. Change the interleave delay to 2 milliseconds to reduce latency and change the number of FEC check-bytes to 2 for reduced overhead
- B. Leave the interleave delay at 4 milliseconds and change the FEC check-bytes to 2
- C. Leave the FEC check-bytes at 4 and change the interleave delay to 2 milliseconds.
- D. Change the interleave delay to 16 milliseconds and the FEC check-bytes to 16

Answer: D

---

**QUESTION 84:**

Network topology exhibit



You work as a network engineer at Certkiller .com. According to the exhibit, a PPPoE session is initiated by the user from the PC using the user name zacksmith@ Certkiller .com. This PPPoE session ultimately terminates on the ISP router, using domain based tunneling on 6400.

What is the correct sequence of events which occur during user authentication?

- A. The 6400 will query the PC to get the domain name. The 6400 will issue a PPP authentication challenge to which the PC will respond using the username zacksmith@ Certkiller .com. Once the tunnel is established, the ISP router will issue a challenge to the user and will authenticate the response.
- B. . The 6400 will issue a PPP authentication challenge to which the PC will respond using the username zacksmith@ Certkiller .com. The 6400 will authenticate the user. It will also use the domain name to find out the tunnel endpoint. The tunnel is established and user traffic will now be allowed to flow without any further authentication.
- C. . The 6400 will issue a PPP authentication challenge to which the PC will respond using the username zacksmith@ Certkiller .com. The 6400 will use the domain name Certkiller .com to find



out the tunnel endpoint. It will forward the authentication information to the ISP router which will authenticate the user.

D. The 6400 will use the PVC number to decide the tunnel endpoint. Once the tunnel is established the ISP router will issue a challenge to the user and will authenticate the response.

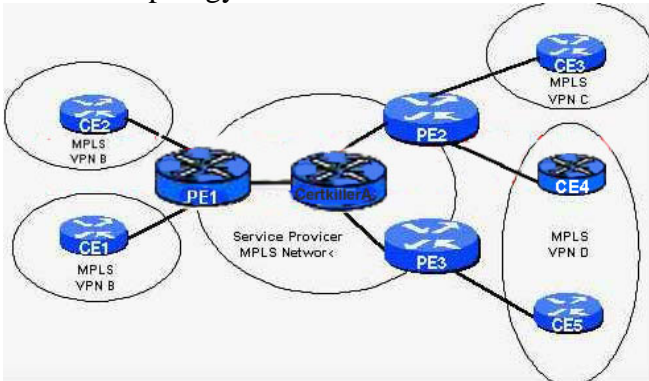
E. None of the above.

Answer: B

---

**QUESTION 85:**

Network topology exhibit



You work as a network administrator at Certkiller .com.

In the MPLS network shown, how many routing tables are on Router PE1?

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

Answer: C

---

**QUESTION 86:**

Your boss at Certkiller .com is curious about DSL. All of the following are components of LANE except:

- A. LAN Emulation Client (LEC)
- B. LANE Configuration Server (LECS)
- C. LAN Emulation Server (LES)
- D. Broadcast and Unknown Server (BUS)
- E. LANE Routing Table (LRT)

Answer: E

**QUESTION 87:**

Your boss at Certkiller .com is curious about DSL. In BGP, why should a Route Reflector be used?

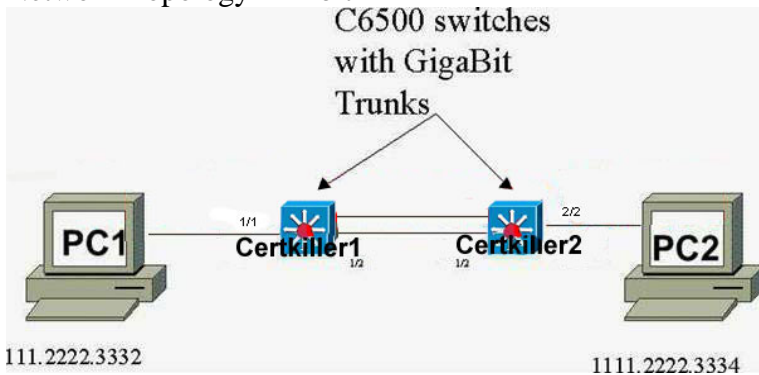
- A. To overcome issues of split-horizon within BGP.
- B. To reduce the number of External BGP peers by allowing updates to reflect without the need to be fully meshed.
- C. To allow the router to reflect updates from one Internal BGP speaker to another without the need to be fully meshed
- D. To divide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

Answer: C

---

**QUESTION 88:**

Network Topology Exhibit



You work as a network administrator at Certkiller .com. If switch Certkiller 1 is the root of the spanning tree for all VLANs in the network, what ports will be blocking on Switch Certkiller 1?

- A. 1/1 only
- B. 1/2 only
- C. Both 1/1, and 1/2
- D. Not enough information

Answer: C

---

**QUESTION 89:**

Your boss at Certkiller .com is curious about DSL. When using IS-IS for IP routing, DUAL IS-IS defined by RFC 1195, what is true? Select two

- A. It is necessary to configure a NSAP address.
- B. It is not possible to perform both IP and CLNS routing with 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: B, C

---

**QUESTION 90:**

You work as a network technician at Certkiller .com. 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.

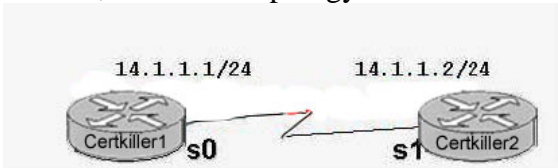
- A. Redundant DIS
- B. BDR
- C. There is no concept of a backup DIS in IS-IS
- D. Designated Redundant System

Answer: C

---

**QUESTION 91:**

Exhibit, Network Topology Exhibit



You work as a network engineer at Certkiller .com. Based on the information in the exhibit, which OSPF configurations listed are valid? (Choose two.)

- A. router Certkiller 1  
router ospf 1  
network 14.0.0.0 0.255.255.255 area 0  
router Certkiller 2  
router ospf 1  
network 14.0.0.0 0.255.255.255 area 0
- B. router Certkiller 1  
router ospf 1  
network 14.1.1.0 0.0.0.255 area 0  
router Certkiller 2  
router ospf 2  
network 14.1.1.0 0.0.0.255 area 0
- C. router Certkiller 1  
router ospf 1  
network 14.0.0.0 0.0.255.255 area 0  
router Certkiller 2  
router ospf 1

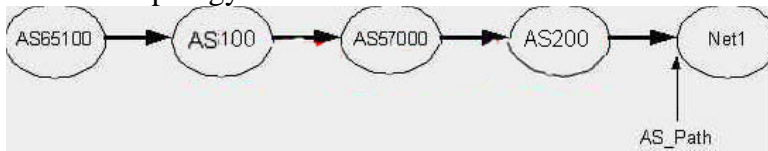
```
network 14.0.0.0 0.0.0.255 area 0
D. router Certkiller 1
router ospf 1
network 14.1.1.0 0.0.0.255 area 0
router Certkiller 2
router ospf 1
network 14.1.0.0 0.0.255.255 area 0
```

Answer: A, B

---

**QUESTION 92:**

Network topology exhibit



You work as a network engineer at Certkiller .com. Using the exhibit, which are valid BGP AS\_Path attributes received at Net1 for a route originating from AS65100? Select two

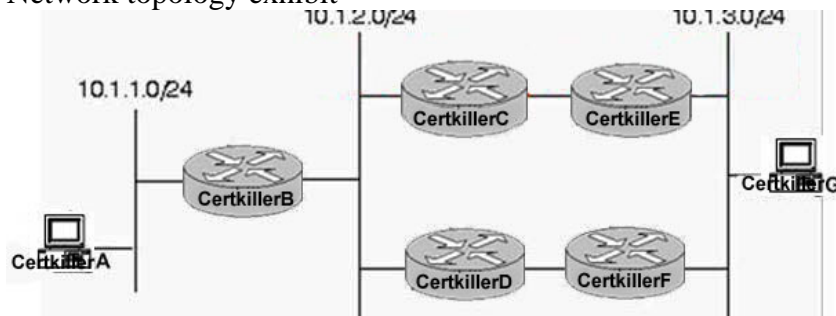
- A. 200 57000 100 65100
- B. 200 57000 100 100
- C. 100 57000 200
- D. 200 57000 100
- E. 65100 100 57000 200

Answer: A, D

---

**QUESTION 93:**

Network topology exhibit



You work as a network technician at Certkiller .com. Refer to the exhibit. In this network, Host Certkiller G is attempting to send a packet to Host Certkiller A through Router Certkiller E. All routers are running EIGRP, and Router Certkiller E has installed the following route in its routing table:

10.1.1.0/24 via Certkiller F

What will occur when Router Certkiller E receives packets from Host Certkiller G that are destined for Host Certkiller A?

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

Answer: E

---

**QUESTION 94:**

Your boss at Certkiller .com is curious about DSL. Which are the correct ways to release IBGP from the condition that all IBGP neighbors need to be fully meshed? Select two

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

Answer: B, D

---

**QUESTION 95:**

You work as a network administrator at Certkiller .com. You have forgotten the enable password of the router. Luckily, no is currently logged into the router, but all passwords on the router is encrypted.

What action should you take 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 96:**

Your boss at Certkiller .com is curious about DSL. Which of the following CGMP (Cisco Group Management Protocol) statements is correct? Select two.

- A. CGMP manages multicast traffic in Catalyst 5000 series switching 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:**

Your boss at Certkiller .com is curious about DSL.

Consider the following four blanks.

Virtual path identifier (VPI) and virtual channel identifier (VCI) values on the NRP-2 must share \_\_\_\_\_ bits. By default VPI values are limited to \_\_\_\_\_ bits (0-15), and VCI values are limited to \_\_\_\_\_ bits (0-1023). A Network Administrator can change the VPI and VCI ranges, but tighter the VPI and VCI values cannot exceed \_\_\_\_\_ bits.

Which numbers below, correctly fill in the blanks?

- A. 16, 6, 10, 16
- B. 18, 4, 12, 16
- C. 18, 4, 8, 12
- D. 14, 4, 10, 14
- E. 14, 5, 9, 14

Answer: D

---

**QUESTION 98:**

Your boss at Certkiller .com is curious about DSL. What is Forwarding Class assignment NOT likely to be based upon?

- A. Fragment offset
- B. Destination address
- C. Application protocol
- D. Class of service

Answer: C

---

**QUESTION 99:**

**350-022**

You work as a network administrator at Certkiller .com. Below are four 'out' access-lists, configured on an interface. What list will block an IP packet with the 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 telnet  
access list 100 permit ip any any
- B. access-list 100 deny tcp 144.23.67.94 0.0.0.7 any eq telnet  
access list 100 permit ip any any
- C. access-list 100 deny tcp 144.23.67.86 0.0.0.7 eq telnet 197.55.34.240 0.0.0.15  
access list 100 permit ip any any
- D. access-list 100 deny ip 144.23.67.94 0.0.0.7 host 144,23.67.94  
access list 100 permit ip any any

Answer: A

---

**QUESTION 100:**

Your boss at Certkiller .com is curious about DSL. What does the Service Selection Gateway (SSG) feature on the NRP support to authenticated and authorize users?

- A. RADIUS
- B. TACACS+
- C. Kerberos
- D. MS-CHAP
- E. Radius and Tacacs+

Answer: A

---

**QUESTION 101:**

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 102:**

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 103:**

A subscriber complains that his DSL rates are slower than the service he ordered. The customer ordered ADSL at 1 mpbs downstream and 256 kbps upstream, but the maximum bitrate observed during file downloads is never more than 128 kbps downstream. Initial troubleshooting shows that the subscriber's DSL modem is trained at 1024 kbps downstream and 256 kbps upstream. Which one of the following presented choices is clearly the most appropriate information needed to begin troubleshooting the problem?

A. The ATM QoS parameters assigned to the subscriber's PVC in the DSLAM, ATM switch, and router.

B. The software version running in the CPE and DSLAM.

C. The manufacturer and model of ADSL CPE that is used, to determine correct interoperability with the DSLAM.

D. The FEC parameters used for the subscriber's ADSL port in the DSLAM, which could be causing the degraded throughput.

Answer: A

---

**QUESTION 104:**

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 105:**

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

A. T301

B. T303

C. T302

D. T310



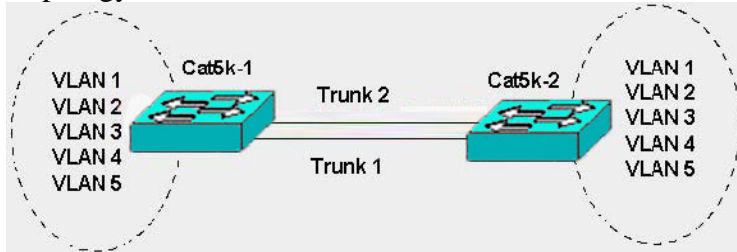
E. T305

Answer: B

---

**QUESTION 106:**

Topology Exhibit



Assuming default spanning tree configurations are running between two switches with redundant trunks:

- A. Both trunk 1 and trunk 2 will go into blocking mode to avoid loops.
- B. One trunk will go into blocking mode for all VLANs.
- C. Certain VLANs can be blocked on one trunk and other VLANs on the second trunk.
- D. Both trunks can be in a forwarding state for all VLANs.

Answer: C

---

**QUESTION 107:**

Routing Table Exhibit

```
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?

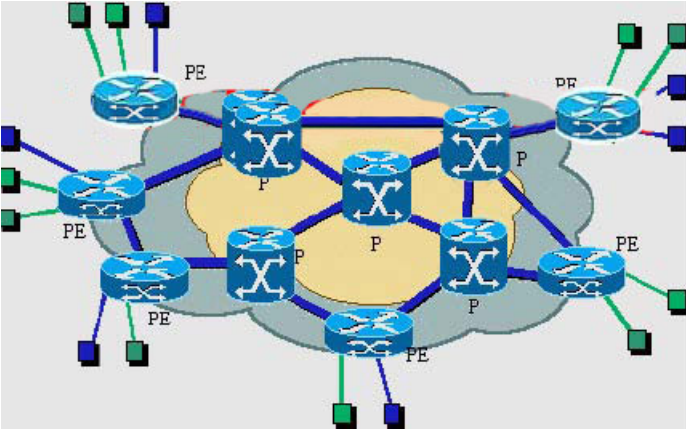
- A. 10.1.0.0/16 through EIGRP, because EIGRP routes are always preferred over OSPF or static routes.
- B. 10.1.0.0/16 static, because static routes are always preferred over OSPF or EIGRP routes.
- C. 10.1.1.0/24 through OSPF because the route with the longest prefix is always chosen.
- D. Whichever 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 108:**

Topology Exhibit



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 109:

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: ABD

#### QUESTION 110:

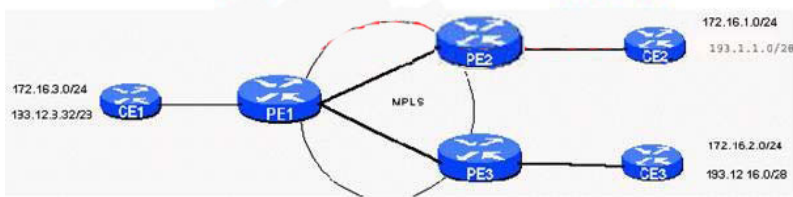
In MPLS what is an LSP?

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

Answer: B

**QUESTION 111:**

Topology Exhibit



In the MPLS network shown, which subnets would be in the same Forwarding Equivalence Class (FEC) on router PE1:

- A. 172.16.3.0/24 and 193.1.1.0/28
- B. 172.16.1.0/24 and 172.16.2.0/24
- C. 172.16.1.0/24 and 193.1.1.0/28
- D. 172.16.1.0/24, 172.16.2.0/24, and 172.16.3.0/24

Answer: C

---

**QUESTION 112:**

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 113:**

MPLS does not support:

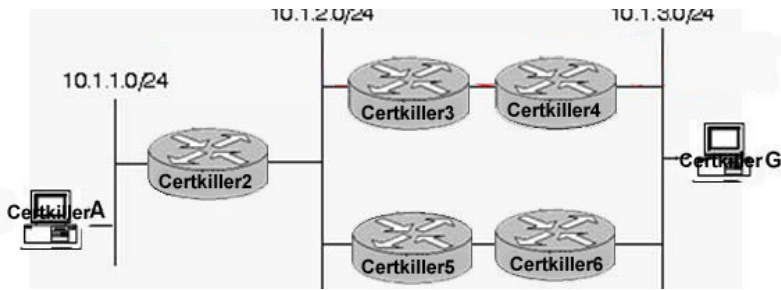
- A. Multicast
- B. OSPF
- C. BGP
- D. Multicast and OSPF

Answer: A

---

**QUESTION 114:**

Topology Exhibit



Routers Certkiller 5 and Certkiller 6 are configured for HSRP (Hot Standby Routing Protocol). Certkiller 5 has a priority of 100, while Certkiller 6 has a priority of 50. At one point, when Certkiller 5 is the active router, it fails, and Certkiller 6 takes over as the active router. A few minutes later, Certkiller 5 returns to service. What happens? router again unless Certkiller 6 fails.

- A. Certkiller6 will remain the active router; there is no way for Certkiller5 to become the active
- B. Certkiller 5 and Certkiller 6 will negotiate which router should be active based on their IP addresses.
- C. Certkiller5 will always take over the active role; there is no way for Certkiller6 to remain active once another router with a higher priority is on the network.
- D. Certkiller 5 will become the active router, if it is configured to preempt.
- E. Certkiller 6 will remain the active router because having a lower priority is better.

Answer: D

---

**QUESTION 115:**

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?

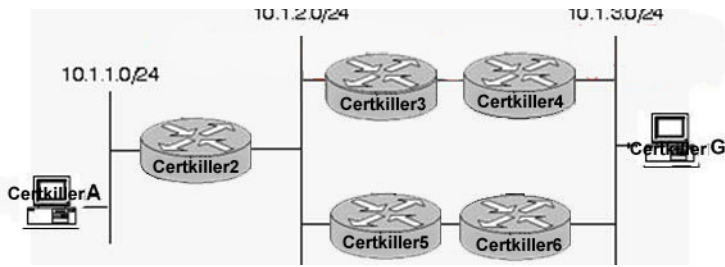
- A. It depends on which router is active.
- B. Neither - a virtual MAC address will be assigned based on the group number, unless the routers are configured to use their burned in addresses (BIA).
- C. The routers will negotiate and decide automatically which MAC address to use based on the routers' 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 116:**

Topology exhibit



Routers Certkiller 5 and Certkiller 6 are running HSRP (Hot Standby Router Protocol). Router Certkiller 5 has a higher priority, and both routers have standby preempt configured. Since Router Certkiller 5 is normally the active router, what IP address should Host Certkiller G use for its default gateway?

- A. 10.1.3.1
- B. Router Certkiller5's IP address, since it is normally active; Router Certkiller6 will take over Router E's address if it fails.
- C. Router Certkiller6's IP address, the active router will take over the standby router' IP address until it fails
- D. The virtual address configured when enabling HSRP configured
- E. The virtual address assigned by HSRP; this address is dependent on the group number

Answer: D

---

**QUESTION 117:**

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 255.255.255.255, 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 118:**

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 119:**

EIGRP applies the principle of Feasible Successor (FS) in resolving a new path to a lost route. What statement regarding the FS is correct?

- A. Information is stored for the FS as part of the Link-State Routing updates forwarded for EIGRP.
- B. EIGRP estimates the FS from each neighbor for each network after an exchange of database information during the normal update process. It uses this information for path selection when a route is lost.
- C. When EIGRP is notified that a route is lost, it will always send requests to each neighbor for ways to reach the lost route. The neighbor that returns the best path will qualify as the FS.
- D. EIGRP nominates a central router as the FS for all lost routes during configuration.

Answer: B

---

**QUESTION 120:**

CIDR is primarily used:

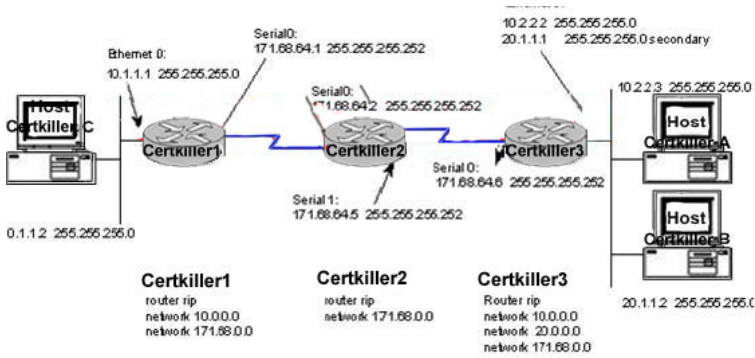
- A. In BGP only
- B. For classless routing
- C. In OSPF only
- D. In EIGRP only

Answer: B

---

**QUESTION 121:**

Topology exhibit



With RIP running, what command would be used to set the default route on Router Certkiller 2 to 171.68.64.6 (Router Certkiller 3)?

- A. ip default-network 171.68.64.6
- B. ip route 0.0.0.0 255.255.255.255 171.68.64.6
- C. ip route 0.0.0.0 0.0.0.0 171.68.64.6
- D. None of the above

Answer: C

### QUESTION 122:

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 discontinuous networks.

Answer: D

### QUESTION 123:

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 124:

After OSPF is defined on a broadcast medium, the network administrator now wants a

specific router to act as the Designated Router (DR) for a particular segment. What must the administrator do to ensure this always occurs?

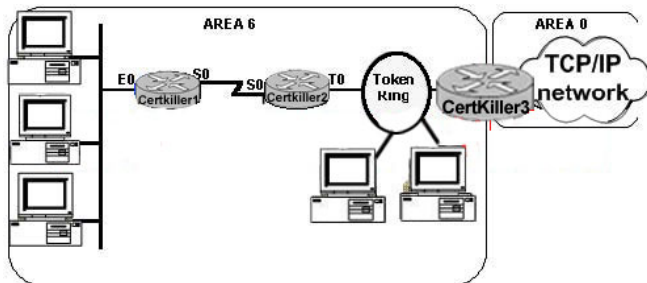
- A. Ensure the required router is the first to load, so it can assume the role of the Designated Router
- B. Configure the required router with the highest IP address on this segment
- C. Configure ip ospf priority on the interface, using a lower value than any other router on this segment
- D. Configure ip ospf priority on the interface, using a higher value than any other router on this segment

Answer: D

---

**QUESTION 125:**

Exhibit



In a move to support standards-based routing, the decision is made to use the OSPF routing protocol throughout the entire network. The areas are displayed in the exhibit.

The subnets are:

Ethernet on Router Certkiller 1: 108.3.1.0

Serial line between Router Certkiller 1 and Router Certkiller 2: 108.3.100.0

Token Ring on Router Certkiller 2: 108.3.2.0

A subnet mask of 255.255.255.0 is used for all the subnets.

How should OSPF be configured on Router B?

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



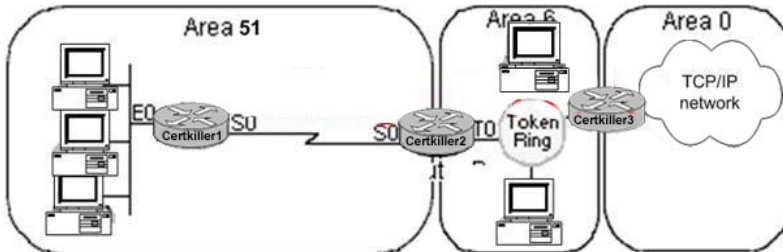
network 108.3.2.0 0.0.0.255 area 6

Answer: B

---

**QUESTION 126:**

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: BC

---

**QUESTION 127:**

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 128:**

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.
- 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 129:**

Three of the following statements are correct. Identify the three (3) correct statements.

- A. As ADSL rates are manually reduced by changing the DSL profile in the DSLAM, signal-to-noise margins improve.
- B. As cable length increases, actual noise margins degrade (less margin) for the same DSL rate.
- C. Low actual noise margins can cause lower than desired trained rates and unreliable DSL service.
- D. Higher ATM and IP data rates cause lower DSL margins. For higher ATM and IP data rates, the noise margin options must be set higher in the DSL profiles.

Answer: ABC

---

**QUESTION 130:**

The following are wire sizes used in telephone company cables. What will allow the best overall DSL performance?

- A. 7 kft (2.1 km) of #26 AWG (0.4 mm) cable
- B. 9 kft (2.75 km) of #26 AWG (0.4 mm) cable
- C. 7 kft (2.1 km) of #24 AWG (0.5 mm) cable
- D. 9 kft (2.75 km) of #24 AWG (0.5 mm) cable

Answer: C

---

**QUESTION 131:**

A subscriber's DSL service was not working correctly. The subscriber discovered that a DSL microfilter was accidentally installed between the DSL modem and telephone line instead of between the telephone and telephone line. What was the symptom observed by the subscriber?

- A. The modem would train up, but only when the telephone was off-hook (conversation in progress).
- B. DSL service was normal, but the telephone on the same line would not work.
- C. DSL service was normal, but there was excessive noise heard during telephone conversations.
- D. The DSL modem would either not train up, or it trained at very low DSL rates. The modem would not train up when the telephone was off-hook.

Answer: D

---

**QUESTION 132:**

Which three are major inhibitors of ADSL line quality? (multiple answer)

- A. Bridge Taps
- B. Distance
- C. Squirrels
- D. Load Coils
- E. Line shared by a telephone

Answer: ABD

---

**QUESTION 133:**

The function of the ATU-R is:

- A. To multiplex xDSL signals into the network core.
- B. To provide a network connection for the end-user.
- C. To split ADSL bandwidth from telephony bandwidth.
- D. To switch ATM cells received from CPE.
- E. To extend xDSL signals past the distance limitation.

Answer: B

---

**QUESTION 134:**

What command shows the number and type of cards in the 6160 DSLAM?

- A. show cards
- B. dspcds
- C. show hardware
- D. show dsl profile
- E. show run

Answer: C

---

**QUESTION 135:**

Which modulation techniques are typical of ADSL, but not SDSL, SHDSL, or IDSL?

- A. CAP and DMT
- B. TC/PAM and DMT
- C. CAP and TC/PAM
- D. CAP and 2B1Q

Answer: A

**QUESTION 136:**

What is the function of NSP Cross-Connections in the usage of a 6400 in a production network. (multiple answer)

- A. NSP cross connections can be used as conventional PVC cross-connection when both associated physical ports are external.
- B. NSP cross connections can be use to convert IGP protocols.
- C. NSP cross connections as a PVC part of a subscriber downlink or service uplink if one of the physical ports is internal
- D. NSP cross connections can function as IPSec aggregator in a VPN enviornement.
- E. NSP cross connections performs node protection using FRR.

Answer: AC

---

**QUESTION 137:**

Virtual path identifier (VPI) and virtual channel identifier (VCI) values on the NRP-2 must share \_\_\_bits. By default, VPI values are limited to \_\_\_ bits (0-15), and VCI values are limited to \_\_\_ bits (0-1023). A Network Administrator can change the VPI and VCI ranges, but together the VPI and VCI values cannot exceed \_\_\_ bits.

Which numbers below, correctly fill in the blanks?

- A. 16, 6, 10, 16
- B. 18, 4, 12, 16
- C. 18, 4, 8, 12
- D. 14, 4, 10, 14
- E. 14, 5, 9, 14

Answer: D

---

**QUESTION 138:**

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 139:**

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 140:**

What ATM cell header is used for cell delineation?

- A. GFC
- B. HEC
- C. PTI
- D. VPI/VCI

Answer: B

---

**QUESTION 141:**

What ATM cell header contains a generic flow control (GFC) field?

- A. The NNI ATM cell
- B. The UNI ATM cell
- C. Both UNI and NNI
- D. None of the above

Answer: B

---

**QUESTION 142:**

What is the purpose of rate decoupling for ATM transmission?

- A. It provides transparency between SONET and SDH.
- B. It converts higher-speed DS3/E3 to lower-speed optical rates.
- C. It processes the packing and unpacking of frames into 53-octet cells.
- D. It allows lower-speed traffic on an ATM facility without causing traffic gaps.

Answer: D

---

**QUESTION 143:**

The NNI specification defines communications between:

- A. An ATM end system and an ATM switch

- B. Two ATM end systems
- C. An ATM device and a non-ATM device
- D. Two ATM switches from different carriers
- E. Two ATM switches

Answer: E

---

**QUESTION 144:**

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 145:**

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 146:**

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 147:**

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 148:**

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: ABD

---

**QUESTION 149:**

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 150:**

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 151:**

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

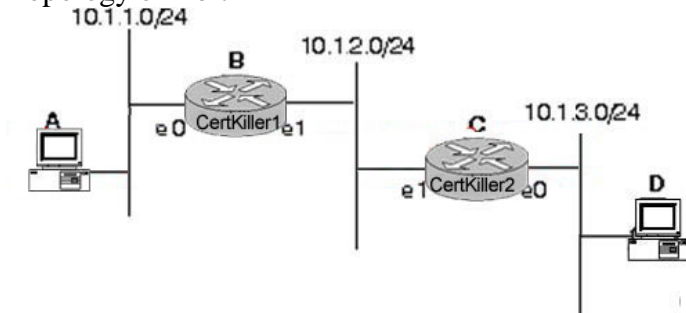
- A. Resending the segment
- B. Increasing the window size
- C. Resetting the session
- D. Increasing the amount of time it will wait when timing out the next segment that is sent

Answer: AD

---

**QUESTION 152:**

Topology exhibit



In this network, Host A is trying to reach Host D. There is no routing protocol running, but Router Certkiller 2 and Certkiller 3 have the following static routes configured:

- Router Certkiller 2: ip route 10.1.3.0 255.255.255.0 ethernet 1
- Router Certkiller 3: ip route 10.1.1.0 255.255.255.0 ethernet 1

- A. This will not work because Router Certkiller 2 has no idea of how to forward traffic to the 10.1.3.0/24 network.
- B. This will work because Router Certkiller 2 will recognize that Router Certkiller 3 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 Certkiller 3.
- C. This will not work because a broadcast interface in a static route command cannot be specified.
- D. This will work because Router Certkiller 2 will ARP for Host D's IP address on the 10.1.2.0/24 network and Router Certkiller 3 will answer.

Answer: D

---

**QUESTION 153:**



Exhibit

10.1.1.0/24  
10.1.3.0/24  
10.1.14.6/26  
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 154:**

Exhibit

192.168.10.0/25  
192.168.10.64/26  
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: AB

---

**QUESTION 155:**

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: BE

---

**QUESTION 156:**

Exhibit

```
The configuration for CertkillerA is as follows:
CertkillerA#show running-config
Current configuration:
version 11.3
1.) hostname CertkillerA
2.) enable-password enablepassword
3.) interface ethernet 0
4.) ip address 191.8.1.1 255.255.255.0
5.) no mop enabled
6.) interface serial 0
7.) ip address 191.8.150.1 255.255.255.0
8.) ip name-server 255.255.255.255
9.) ip host CertkillerA 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 vty 2
20.) password vtypassword
21.) line vty 3
22.) password vtypassword
23.) line vty 4
24.) password vtypassword
25.) end
CertkillerA#

The configuration for CertkillerB is as follows:
CertkillerB#show running-config
Current configuration:
version 11.3
1.) hostname CertkillerB
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 CertkillerB 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
CertkillerB#
```

Certkiller has been assigned the Class B address of 191.8.0.0 by NIC. Certkiller .com have decided to use a subnet mask of 255.255.255.0 and an autonomous system number of 1. The network associated with Router Certkiller A's Ethernet 0 port is designed to be publicly accessible. However, Router Certkiller B's Token Ring 0 network should be accessible only to hosts from Router Certkiller A 's Ethernet 0 network. What access list for Router Certkiller B would accomplish this?

- A. access-list 99 permit 191.8.1.0 0.0.0.255  
access-list 99 deny 0.0.0.0 255.255.255.255
- B. access-list 103 permit 191.8.1.0 0.0.0.255  
access-list 103 deny 0.0.0.0 255.255.255.255
- C. access-list 88 deny 0.0.0.0 255.255.255.255  
access-list 88 permit 191.8.1.0 0.0.0.255
- D. access-list 3 permit 191.8.1.0 255.255.255.0  
access-list 3 deny 0.0.0.0 0.0.0.0
- E. access-list 99 permit 191.8.10.0 0.0.0.0  
access-list 99 deny 0.0.0.0 255.255.255.255

Answer: A

---

**QUESTION 157:**

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 158:**

Given an address of 10.1.1.1 with a subnet mask of 255.255.255.224, how many hosts can be addressed in this subnet?

- A. 16
- B. 15
- C. 30
- D. 31
- E. 63

Answer: C

---

**QUESTION 159:**

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 160:**

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 161:**

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 162:**

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 163:**

What are the 4 bridge port states in a transparent bridging environment?

- A. Spanning, learning, blocking, forwarding
- B. Connecting, learning, spanning, forwarding
- C. Listening, learning, blocking, forwarding
- D. Broadcasting, listening, forwarding, blocking
- E. Learning, forwarding, connecting, blocking

Answer: C

---

**QUESTION 164:**

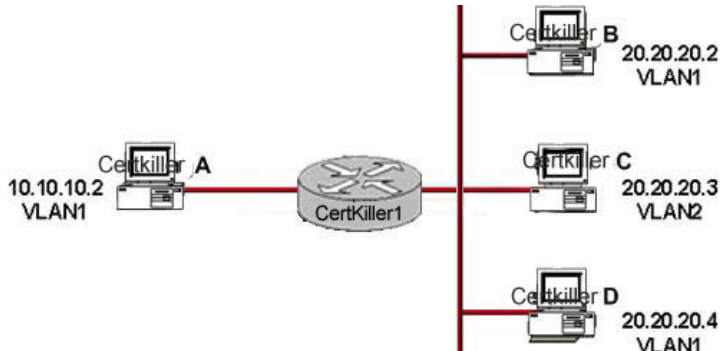
A Fast Ethernet connection supporting multiple VLANs is referred to as:

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

Answer: C

### QUESTION 165:

Exhibit



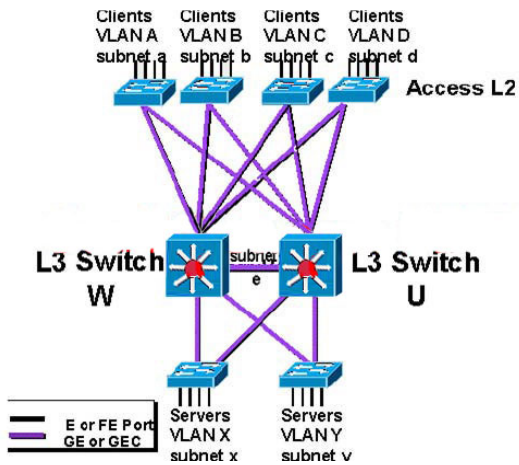
Host Certkiller D sends a frame to Host Certkiller B at the same time that Host Certkiller B sends a frame to Host Certkiller D. Bridging is enabled on Router Certkiller 1, and the two frames collide into each other. Select the best explanation of why Host Certkiller B will or will not receive the original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

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

Answer: C

### QUESTION 166:

Exhibit



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 167:

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 168:

Consider a redundant switched environment where some of the ports are blocked by running spanning tree on a switch. When are BPDUs sent out on blocked ports?

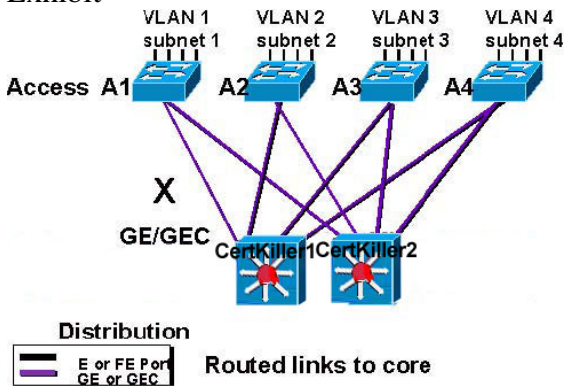
- A. Only when calculating the spanning tree

- B. Every time the switch is rebooted
- C. BPDUs are always sent out blocked ports
- D. BPDUs are never sent out blocked ports

Answer: D

### QUESTION 169:

Exhibit



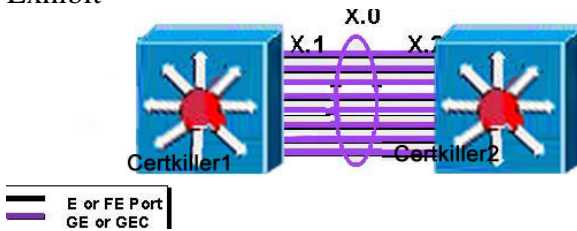
As shown in the diagram, a building in your campus network has two layer 3 switches in the distribution layer and four layer 2 switches in the wiring closets. The layer 3 switches are labeled Certkiller 1 and Certkiller 2. The layer 2 switches are labeled A1, A2, A3, and A4. Access switch A1 is configured as the root switch of VLAN 1. Each access switch has a single subnet and the uplinks are configured as access ports, not VLAN trunks. If the uplink labeled X is cut, how long does spanning tree protocol interrupt connectivity before it converges?

- A. About 2 to 3 seconds if UplinkFast is enabled
- B. About 15 seconds
- C. About 30 seconds
- D. About 50 seconds
- E. There should be no loss in connectivity.

Answer: E

### QUESTION 170:

Exhibit



L3 switches R1 and R2 are in the backbone of the network. They are connected by a routed EtherChannel bundle consisting of eight Gigabit Ethernet ports. The routed link is

represented as subnet X.0 in the diagram. Since X.0 is routed, it is not a VLAN trunk. How can spanning tree loops be prevented in the backbone of this network?

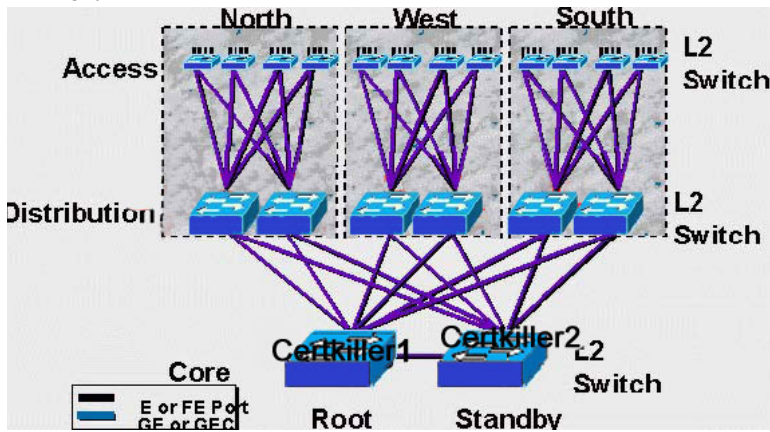
- A. Since EtherChannel X is routed there are no spanning tree loops.
- B. Configure seven of the eight ports in the bundle as passive interfaces
- C. Configure UplinkFast on Certkiller 1 and Certkiller 2
- D. Disable Spanning Tree Protocol (STP) on Certkiller 1 and Certkiller 2
- E. Disable VLAN X on seven of the eight ports in the bundle

Answer: A

---

**QUESTION 171:**

Exhibit



The diagram shows an L2 switched campus. Switch Certkiller 1 is the STP root and switch Certkiller 2 is the standby root. How many of the links in the diagram will be placed in blocking mode by STP?

- A. 6
- B. 7
- C. 12
- D. 13
- E. 18
- F. 19

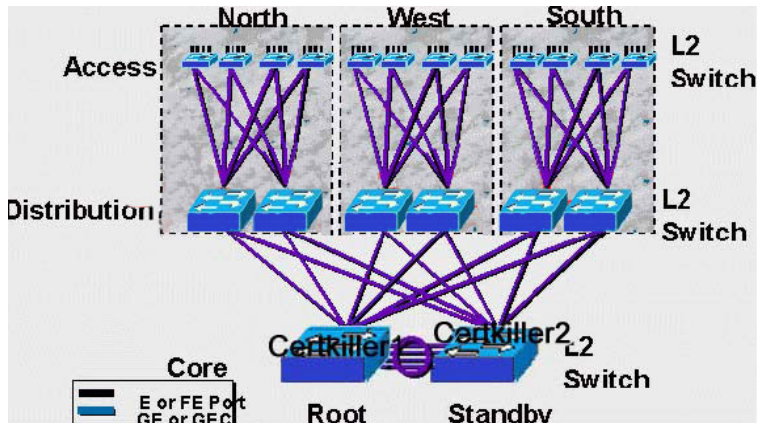
Answer: E

---

**QUESTION 172:**

Exhibit





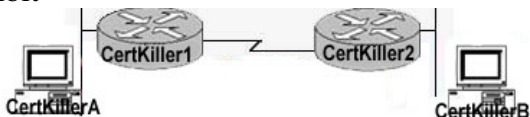
The diagram shows a campus with a L2 switched backbone. The backbone has a single VLAN (= subnet) with no loops. The links into the backbone are routed interfaces, not VLAN trunks. Switch Certkiller 1 is the STP root of the core VLAN and switch Y is the standby root. The connection between Certkiller 1 and Certkiller 2 is an EtherChannel. The network architect wants to add more redundancy by connecting the L3 switches in the distribution layer to both Certkiller 1 and Certkiller 2. What best describes that plan?

- 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 173:

Exhibit



Host Certkiller A and Host Certkiller B are on Ethernet LANs in different buildings. A serial line is installed between two Cisco routers using Cisco HDLC serial line encapsulation. Routers Certkiller 1 and Certkiller 2 are configured to route IP traffic. Host Certkiller A sends a packet to Host Certkiller B. What is the destination MAC address of the packet on Host's Certkiller A Ethernet?

- A. Host Certkiller A
- B. Host Certkiller B
- C. Router Certkiller 1
- D. Router Certkiller 2
- E. The broadcast address

Answer: C

**QUESTION 174:**

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 175:**

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 176:**

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 177:**

For an OC-48 signal (2.5Gb/s), what is the BER (bit error rate) if there is 1 bit error every four days?

- A. 10E-12
- B. 10E-13

- C. 10E-14
- D. 10E-15
- E. 10E-16

Answer: D

---

**QUESTION 178:**

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 179:**

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 180:**

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 181:**

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: AC

---

**QUESTION 182:**

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 183:**

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(r) 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 184:**

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: BCDE

## QUESTION 185:

### Exhibit

|   |   |
|---|---|
| <p>The configuration for CertkillerA is as follows:</p> <pre>CertkillerA#show running-config Current configuration: version 11.3 1.) hostname CertkillerA 2.) enable-password enablepassword 3.) interface ethernet 0 4.) ip address 191.8.1.1 255.255.255.0 5.) no mop enabled 6.) interface serial 0 7.) ip address 191.8.150.1 255.255.255.0 8.) ip name-server 255.255.255.255 9.) ip host CertkillerA 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 vty 2 20.) password vtypassword 21.) line vty 3 22.) password vtypassword 23.) line vty 4 24.) password vtypassword 25.) end CertkillerA#</pre> | <p>The configuration for CertkillerB is as follows:</p> <pre>CertkillerB#show running-config Current configuration: version 11.3 1.) hostname CertkillerB 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 CertkillerB 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 CertkillerB#</pre> |
|---|---|

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

What effect will this configuration command have?

line vty 0 4

no 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 186:

### Exhibit

```

The configuration for CertkillerA is as follows:
CertkillerA#show running-config
Current configuration:
version 11.3
1.) hostname CertkillerA
2.) enable-password enablepassword
3.) interface ethernet 0
4.) ip address 191.8.1.1 255.255.255.0
5.) no mop enabled
6.) interface serial 0
7.) ip address 191.8.150.1 255.255.255.0
8.) ip name-server 255.255.255.255
9.) ip host CertkillerA 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 vty 2
20.) password vtypassword
21.) line vty 3
22.) password vtypassword
23.) line vty 4
24.) password vtypassword
25.) end
CertkillerA#

The configuration for CertkillerB is as follows:
CertkillerB#show running-config
Current configuration:
version 11.3
1.) hostname CertkillerB
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 CertkillerB 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
CertkillerB#

```

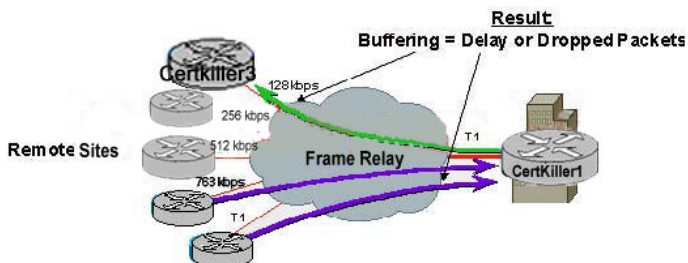
Certkiller has been assigned the Class B address of 191.8.0.0 by NIC. Certkiller.com have decided to use a subnet mask of 255.255.255.0 and an autonomous system number of 1. Debug is enabled on Router Certkiller B, but no debug messages appear on the terminal. Other commands (show commands, etc.) seem to be working. What are the probable causes for this? (multiple answer)

- A. Router Certkiller B is not turned on.
- B. Debug information is being sent to Certkiller 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: CD

### QUESTION 187:

Exhibit



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

- A. Committed Access Rate
- B. Traffic Shaping
- C. Weighted Fair Queuing
- D. Packet Classification w/ Weighted Fair Queuing

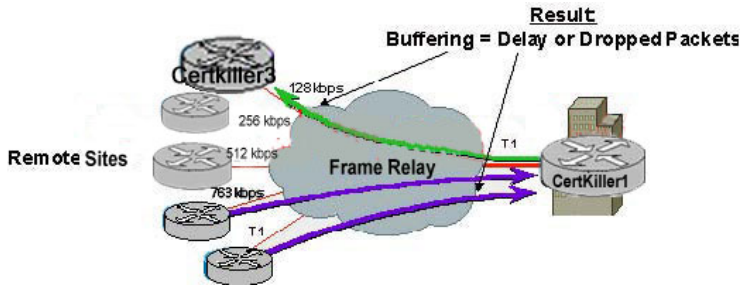
E. None of the Above

Answer: B

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**QUESTION 188:**

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