

<b>Exam</b>	<b>400-007</b>
<b>Title</b>	<b>CCDE Cisco Certified Design Expert Exam</b>
<b>Version</b>	<b>2.0</b>
<b>Product Type</b>	<b>94 Q&amp;A with explanations</b>

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Question 1:

**Which statement about the behavior of OSPF on a hub-and-spoke topology is true?**

- A. Traffic does not need to traverse the hub to reach the spokes
- B. The DR and BDR election occurs regardless of the underlying OSPF network type.**
- C. Additional host routes are added to the routing table on a NBMA network type.
- D. The DR election is a challenge unless a point-to-point network type is use

**Answer: D**

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Question 2:

**Which option is a BFD design consideration?**

- A. BFD is supported on indirectly connected peers.
- B. BFD should not be used with RSVP-TE backup tunnels**
- C. BFD does not support sessions over MPLS LSPs
- D. BFD echo mode may reduce convergence time.

**Answer: D**

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Question 3:

**You work for a large company that has just acquired another smaller company. You have been asked to lead a group of SAN experts from both companies to design the integration plan that will be used to interconnect the SANs and migrate the data from the newly acquired company to the main storage arrays. The first thing that the team discovers is that the two SANs have the same domain IDs. As the SAN team lead, what would you advise your team to do so that you can interconnect the two SANs while minimizing disruption?**

**Use IVR NAT with a transit VSAN between the SANs**

**The two SANs cannot be merged without disruption**

**Change the domain IDs on both SANs so that they are both unique and then connect ISLs between the SANs**

**Use FCIP with Write Acceleration and IVR version 1 with a transit VSAN to expedite the data transfer between the two SANs.**

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**Answer: A**

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Question4:

**Currently a service provider provides IPv4 traceroute services between MPLS PE routers. The provider wants to implement IPv6 with MPLS 6PE/6VPE and then provide parallel IPv6 traceroute services between MPLS PE routers. Which two design solutions provide this service? (Choose two.)**

- A. The PE routers must support ICMPv6
- B. The PE routers must support full IPv6.
- C. The P routers must support ICMPv6
- D. The P routers must support full IPv6

**Answer: A,B**

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Question5:

**You are designing an 802.11 wireless network to include a controller as a central configuration point and access points across several remote sites. Which two aspects will manage the flow of the traffic to meet these design considerations? (Choose two.)**

- A. The access point can receive multicast traffic in the form of multicast packets from the WLC
- B. Layer 3 roaming is not supported for locally switched WLANs
- C. WLAN access lists can be applied only to centrally switched WLANs.
- D. The 802.1x authentication for a client associated to an AP on a locally switched WLAN is always handled at the wireless LAN controller side**
- E. WLAN local switching with VLAN mapping requires that VLAN ID that is mapped on the AP to match a dynamic interface that is configured on the wireless LAN controller**

**Answer: B,C**

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Question6:

**What are three tools for ongoing monitoring and maintenance of a voice and video environment? (Choose three.)**

- A. flow-based analysis to measure bandwidth mix of applications and their flows**
  - B. passive monitoring via synthetic probes to measure loss, latency, and jitter
  - C. call management analysis to identify CAC failures and call quality issues
  - D. active monitoring via synthetic probes to measure loss, latency, and jitter
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**Answer: A,C,D**

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Question7:

**You are creating a network design that will influence the traffic path across the MPLS core on a virtual private LAN. Which parameter is included in your design to manage the traffic?**

- A. Create an MPLS traffic engineering tunnel and modify the path using a static route**
- B. Deploy MPLS traffic engineering and modify the path using the preferred path
- C. Deploy MPLS traffic engineering and modify the path using auto-route, static routing, or PBR.**
- D. Create an MPLS traffic engineering tunnel and modify the path using auto-route announce.**

**Answer: B**

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Question8:

**A junior engineer is implementing one of your optical designs and asks about CWDM (Coarse Wavelength Division Multiplexing). Which two features describe CWDM? (Choose two.)**

- A. Passive CWDM devices require no electrical power
- B. uses the 850-nm band**
- C. shares the same transmission window as DWDM
- D. allows up to 32 optical carriers to be multiplexed onto a single fiber**
- E. E. typically used over long distances, but requires optical amplification

**Answer: A,C**

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Question9:

**Which two OSPF design considerations should you implement to support the eventual growth of a network, so that CPU and memory are unaffected by the size and complexity of the link-state database in a large service provider network? (Choose two.)**

- A. Turn on the Incremental SPF feature.
- B. Turn on packet pacing
- C. Add more memory
- D. Turn on route dampening
- E. E. Create network summaries

**Answer: A,B**

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Question 10:

**Which two statements describe how including Cisco IPoDWDM proactive protection in an optical design would minimize packet loss in the event of a fiber cut? (Choose two).**

- A. It reroutes the optical circuit after an event that impacts service
- B. It uses the FEC field on the OTN frame to trigger protection.
- C. It uses a "not to exceed" predefined BER threshold to cause traffic redirection.**
- D. It is effective both when you have redundant and nonredundant Layer 3 MPLS paths.

**Answer: B,C**

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Question 11:

**A senior network designer suggests that you should improve network convergence times by reducing BGP timers between your CE router and the PE router of the service provider. Which three factors should you to consider when you adjust the timer values? (Choose three.)**

- A. service provider scheduling of changes to the PE
- B. service provider agreement to support tuned timers
- C. access bandwidth
- D. number of VRFs on the PE router

**Answer: B,C**

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Question 12:

**You are deploying a nationwide intranet solution for a company with 4 data centers and 400 remote branches connected via a provider-based solution. As part of the network design, you must ensure efficient content distribution of training material to remote sites. Which two VPN technologies leverage replication in the network core and provide for efficient bandwidth optimization? (Choose two.)**

- A. EoMPLS
- B. GRE
- C. VPLS
- D. GET VPN
- E. E. MPLS Layer 3 VPN**

**Answer: D,E**

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Question 13:

**A Mobile Service Provider would like to design and deploy an Ethernet service which has similar physical link failover/failback characteristics on the active/backup links as the APS/MSP SONET properties. Which Layer 2 services should be considered to address this design feature?**

- A. Ethernet Pseudowires
- B. Flex Link
- C. Port-Channel
- D. MLPPP

**Answer: B**

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Question 14:

**You are designing a NAC OOB Layer 3 Real-IP Gateway deployment for a customer. Which VLAN must be trunked back to the Clean Access Server from the access switch?**

- A. authentication VLAN
- B. untrusted VLAN
- C. user VLAN
- D. management VLAN

**Answer: B**

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Question 15:

**What are two functions of an NSSA in an OSPF network design? (Choose two.)**

- A. An ASBR advertises Type 7 LSAs into the area.
- B. An ABR advertises Type 7 LSAs into the area.
- C. It allows ASBRs to inject external routing information into the area
- D. It uses opaque LSAs.
- E. E. It overcomes issues with suboptimal routing when there are multiple exit points from the area

**Answer: A,C**

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Question 16:

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You are tasked with implementing a 1000-phone remote access solution, where phone calls will traverse a WAN edge router. Assuming all of the following features are supported in a hardware-assisted manner, which of the following will have the most negative impact on the delay of the packet?

- A. GRE encapsulation
- B. stateful firewall
- C. MPLS encapsulation
- D. encryption

**Answer: D**

Question 17:

A Service Provider network designer is considering the use of the G.8032 Ethernet Ring Protection mechanism in order to provide resiliency in the network. Which three concepts will be supported with the implementation G.8032? (Choose three.)

- A. Automatic Protection Switching (APS) Channel
- B. Ring Automatic Protection Switching (R-APS)
- C. Multi-Router Automatic Protection Switching (MR-APS)
- D. Ring Protection Link (RPL)

**Answer: A, B, D**

Question 18:

To improve the stability of a global network, you have been tasked with changing the design to include link-state topology summarization. What are two issues that you should address as part of the design? (Choose two.)

- A. packet reordering
- B. traffic black-holing
- C. suboptimal routing
- D. slow convergence

**Answer: B, C**

Question 19:



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A multicast network is using bidirectional PIM. Which two actions, when combined, can achieve high availability so that two RPs within the same network can act in a redundant manner? (Choose two.)

- A. Advertise routes for the two RPs with different subnet mask lengths through the unicast routing protocol
- B. Use a phantom RP address.
- C. Use Anycast RP based on MSDP peering between the two RPs
- D. Advertise routes for the two RPs with the same subnet mask through the unicast routing protocol

**Answer: A,B**

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Question20:

What is the definition of the ITIL framework?

- A. a series of tools for process improvement that uses statistical methods to reduce defects in processes and manufacturing
- B. a framework for enterprise IP Address Management (IPAM) based on the IANA trusted IP lease allocation scheme
- C. an ISO framework that establishes a model for network management and contains guidelines for managing objects, the management database, and the application entity
- D. a five-volume framework for service management that covers design, transition, and delivery of service, and from which the ISO 20000 was developed

**Answer: D**

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Question21:

Which mechanism provides a Layer 2 fault isolation between data centers?

- A. LISP
- B. advanced VPLS
- C. OTV
- D. TRILL

**Answer: C**

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Question22:

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