Cisco

400-201 Exam

Cisco CCIE Service Provider Exam

Questions & Answers
Demo

Version: 19.0

Topic: 1
Exam Pool A

Question: 1

Which are two benefits of using segment routing over RSVP-TE for traffic engineering? (Choose two)

A. Segment routing traffic engineering tunnels always follow the low-latency path
B. ECMP-aware traffic engineering is natively supported by segment routing
C. Per-flow state is present only at the ingress node to the Segment routing-enabled network
D. Per-flow state is present at the ingress and egress node to the segment routing-enabled network
E. Per-flow state is maintained on all nodes of the segment routing-enabled network

Answer: B, C

Question: 2

What is one of the functions of a LISP ingress tunnel router?

A. Ability to integrity-check LISP site registration messages using a SHA2-based HMAC algorithm
B. Responsible for finding EID-to-RLOC mappings for all traffic destined for LISP-capable sites
C. Accept encapsulation Map-request messages, decapsulate them to the MS responsible for the ETR authoritative for the requested EIDs
D. Allows EIDs and RLOCs to communicate in a LISP site that contains EIDs in one address family and RLOCs in a different address family

Answer: B

Question: 3

An support engineer has been tasked to protect an ISP infrastructure from the growing number of encrypted DDoS attacks. The solution should also validate the eBGP peering. Which solution

accomplishes these goals?

A. BGP FlowSpec
B. BTSH
C. BGP Route Dampening
D. BGP LS
E. RTBH

Answer: E

Question: 4

ISP A provides L2VPN services to Company B through an MPLS network. Company B uses all available CoS values to classify and different traffic forwarding within all Company B sites. ISP A uses the following CoS values to differentiate service classes for the VPN customer traffic
*MPLS EXP 0 for Bronze service class
*MPLS EXP 1 for Silver service class
*MPLS EXP 2 for Gold service class
*Remaining   MPLS   EXP   values   for   ISP   A   internal   use
ISP A's policy is to forward VPN customer traffic based only on their Bronze, silver and Gold service classes. Which QoS method must ISP A implement to achieve this?

A. Short-pipe Mode
B. Russian Doll Model
C. Pipe Mode
D. Uniform Mode
E. Maximum Allocation Model

Answer: D

Question: 5

Refer to the exhibit

```
ipv4 access-list FILTER1 10 permit tcp 10.10.10.0/24 any eq www
ipv4 access-list FILTER2 10 permit tcp 10.10.10.0/24 any eq smtp
!
class-map match-all TEST1
 match access-group ipv4 FILTER1
end-class-map
class-map match-all TEST2
 match access-group ipv4 FILTER2
end-class-map
policy-map POL1
  class TEST1
  bandwidth percent 10
  !
  class TEST2
  priority level 1
  police rate percent 10
  !
  class class-default
  !
  end-policy-map
```

Refer to the exhibit, An engineer is asked to troubleshoot packet drops inside a network which option is true?

A. HTTP traffic originated by the 10.10.10.0/24 subnet uses up to 10% of the interface bandwidth. However, if no congestion is present, no more bandwidth is allocated to HTTP traffic
B. SMTP traffic originated by the 10.10.10.0/24 subnet uses up to 10% of the bandwidth, however, if no congestion is present, more bandwidth is allocated to SMTP traffic
C. SMTP traffic originated by the 10.10.10.0/24 subnet uses up to 10% of the bandwidth. However , if no congestion is present, SMTP traffic above 10% of link bandwidth is dropped
D. HTTP traffic originated by the 10.10.10.0/24 subnet uses up to 10% of the interface bandwidth. However, if congestion is present, less bandwidth is allocated to HTTP traffic

Answer: C

Question: 6

Which are the two limitations of the predefined NAT solution?(Choose two)

A. The Bulk port allocation configuration is not available
B. The global port limit parameter is not available for the predefined mode
C. Only the port-presentation option is available
D. NetFlow and syslog are not supported
E. It cannot be configured for each of the inside VRF instance

Answer: A,B

Question: 7

Which two options are characteristics of MoFRR? (Choose two)

A. Uses additional PIM join toward source
B. Based on multicast forward error correction feature
C. Based on PIM Fast Route
D. Requires MPLS TE FRR enabled with link protection and node protection
E. Utilizes two equal-cost paths toward source

Answer: A, E

Question: 8

ISP_X has IPv4 only enabled in the MPLS backbone. ISP_X must provide IPv6 services to its customers including IPv6 Internet access. Which IPv6 transition mechanism allows ISP_X to provide IPv6 connected by leveraging the existing MPLS IPv4 core network?

A. 6to4 tunnels
B. NAT444
C. 6PE
D. NAT64
E. 6RD
F. DS Lite

Answer: A

Question: 9

What ISIS TLVs are used to support MPLS traffic Engineering? (Choose three)

A. TLV 22 Extended IS neighbor
B. TLV 10 Authentication Information
C. TLV 134 Router ID
D. TLV 132 IP interface Address
E. TLV 128 IP Internal Reachability
F. TLV 135 IS Reachability

Answer: A, C, F

Question: 10

Refer to the exhibit. All links have same bandwidth configured AS 4, AS 4 and AS 7 run OSPF as IGP using default metric values. Which two statements are correct in regards to MSDP SA messages received by R5 located in AS 7? (Choose two)

A. All MSDP SA messages from R1 and R2 via R4 will be dropped
B. All MSDP SA messages from R1 and R2 via R3 will be accepted
C. All MSDP SA messages from R1 and R2 via R3 will be dropped
D. All MSDP SA messages from R1 and R2 via R3 will be dropped and all MSDP SA messages from R2 via R4 will be dropped
E. All MSDP SA messages from R1 and R2 via R4 will be accepted
F. All MSDP SA messages from R1 via R3 will be accepted and all MSDP SA messages from R2 Via R4 will be accepted

Answer: A, B

Question: 11

REP has been deployed in a segment. A network operations engineer notices that a segment port does not become operational. What is the root cause of this issue?

A. A neighbor is using a different port ID
B. A local port is in alternate port state
C. A neighbor port is in blocked state
D. More than one neighbor has the same segment ID

Answer: D

Question: 12

In MPLS-enabled networks, which two improvements does EVPN provide compared to traditional VPLS solutions? (Choose two)

A. use of BGP as a control-plane protocol
B. use of LDP to allocate EVPN-related labels
C. optimized learning and flooding process
D. leveraging of enhanced VFIs to provide greater scalability
E. per-flow load balancing
F. no need for exchange of MAC reachability between PEs

Answer: C, E

Question: 13

An operation engineer from AS 2000 must deploy this inbound routing policy:

*Based on RFC 1998, modify the local-preference value for prefixes containing BGP community values 2000:90 and 2000:110

*Strip any BGP community of the BGP prefixes received from customers that are in the range between 2000:1 and 2000:2000. Any other BGP community values must not be removed

*Apply 2000:1003 BGP community Value, which indicates that the BGP prefix is learned form a customer

Which configuration accomplishes this BGP routing policy?

A. route-policy CUSTOMER-COMMUNITIES
   if community matches-any (2000:90) then
     set local-preference 90
   elseif community matches-any (2000:110) then
     set local-preference 110
   endif
   delete community in (2000:[1..2000])
   set community (2000:1003)
   end-policy

B. route-policy CUSTOMER-COMMUNITIES
   if community matches-any (2000:90) then
     set local-preference 90
   elseif community matches-any (2000:110) then
     set local-preference 110
   endif
   if community matches-any (2000:[1..89], 2000:[91..109], 2000:[111..2000]) then
     delete community all
   endif
   set community (2000:1003)
   end-policy

C. route-policy CUSTOMER-COMMUNITIES
   delete community in (2000:[1..2000])
   if community matches-any (2000:90) then
     set local-preference 90
   elseif community matches-any (2000:110) then
     set local-preference 110
   endif
   set community (2000:1003) additive
   end-policy

D. route-policy CUSTOMER-COMMUNITIES
   if community matches-any (2000:90) then
     set local-preference 90
   elseif community matches-any (2000:110) then
     set local-preference 110
   endif
   set community (2000:1003) additive
   delete community in (2000:[1..2000])
   end-policy

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

Question: 14

Which protocol provides fast link failure detection for all type of encapsulation?

A. Prefix Independent Convergence
B. Carrier delay
C. Non stop forwarding
D. Bidirectional forwarding detection

Answer: D

Question: 15

Which option is the benefit of per-link LFA over per-prefix LFA?

A. It has a greater applicability
B. It provides greater protection coverage
C. It is simpler
D. It enables better bandwidth utilization

Answer: C

Question: 16

A service provider has deployed new PEs using nV Edge technology based on Cisco ASR 9000 routers. How does the system mitigate against a split-brain state if all control plane and data plane links are lost?

A. The chassis located in the second rack automatically shuts down and only the first rack chassis stays operational
B. Both chassis stay online operating as two different PEs
C. The two chassis send keepalive packets over any layer 2 cloud. The non-DSC chassis shuts down itself after it has received these additional keepalive packets
D. Both chassis stop receiving and forwarding data traffic until the control plane and data plane links are brought back up

Answer: B

Question: 17

What is MPLS VPN component used by Multi-VRF solution?

A. Route target community
B. Route distinguisher
C. Default MDT
D. VPN forwarding

Answer: B

Question: 18

Which two characteristics of GMPLS are true? (Choose two)

A. The LSP is established directionally through only one signaling messages
B. The control channel can terminate on different nodes types that the bearer channels span
C. OXCs manipulate wavelengths that bear the label implicitly
D. Two lights paths traversing the same fiber link can share the same wavelength on that link
E. LMP can be used by the natively photonic switches network element type only

Answer: A, C

Question: 19

What is the main goal of the incident management?

A. Restore a normal service operation as quickly as possible
B. Create possible workarounds for issues that might recur
C. Enable the cursor to report issues
D. Ensure that the same incident does not recur

Answer: A

Question: 20

Which mechanism protects the control and management planes of a cisco IOS device to maintain routing stability, network reachability, and packet delivery?

A. RTBH
B. BGP Flow Spec
C. MQC CLI
D. CPPr
E. NetFlow

Answer: D

Question: 21

Which description of the Russian Doll Model is true?

A. RDM provides bandwidth sharing while providing bandwidth isolation and protection against QoS degradation, and also provides service differentiation for high-priority, normal-priority and best-effort priority services
B. RDM matches simple bandwidth control policies setting individual bandwidth constraint for a given class type and simultaneously limit the aggregate of reserved bandwidth across all class types
C. RDM can be used simultaneously to ensure bandwidth efficiency and to protect against QoS degradation of all class types, whether preemption is used or not
D. RDM guarantees a predefined amount of bandwidth for each type and at the same time allows the bandwidth sharing by defining two pools for every class type: private pool (guaranteed bandwidth) and common pool (bandwidth shared between all class types)

Answer: C

Question: 22

In the MVPN profile 3 (Rosen GRE with BGP-AS), which information is included inside of the opaque value?

A. Type 2- Root Address: VPN-ID; 0-n
B. Type 1-source-PE: Global-ID
C. RD:S,G
D. Not applicable for this profile

Answer: D

Question: 23

Which three IS-IS TLVs floods the MPLS TE resource allocation information through the network? (Choose three)

A. Traffic engineering router ID
B. Extended IP reachability
C. IS TE reachability
D. RSVP
E. Extended IS reachability
F. Opaque

Answer: A, B, E

Question: 24

Why is router 1 unable to ping 10.10.100.2 from vrf cust1?

A. Because Multi-VRF support is not enabled
B. Because address-family ipv4 is missing from the VRF statement
C. Because of an incorrect interface configuration
D. Because of a missing BGP configuration

Answer: B

Question: 25

A network engineer is configuring a POS interface on Cisco router running a cisco IOS Software. The POS interface must permit logging of payload label and C2 mismatch SONET/SDN alarms. Which option is the correct configuration?
Interface pos<number>
Pos report pplm

A. Interface pos<number>
Pos report all
B. Interface pos<number>
Pos report encap
C. Interface pos<number>
Pos report ppdi
D. Interface pos<number>
Pos report ptim

Answer: A