Cisco

Exam 642-887

Implementing Cisco Service Provider Next-Generation Core Network Services

Version: 7.0

[Total Questions: 130]

Question No : 1

An engineer is allocating a determined amount of bandwidth to a customer Cisco MPLS TE tunnel to guarantee its availability on a 24/7 SLA type. Which option must be configured to make sure the customer is able to use the bandwidth agreed on the SLA?

A. RSVP that guarantees bandwidth availability end-to-end
B. Cisco MPLS TE tunnel to signal the bandwidth required
C. a QoS policy to reinforce the RSVP bandwidth reservation
D. overprovisioning to guarantee bandwidth

Answer: C

Question No : 2

Which Cisco IOS XR high-availability feature is used to prevent routes from being used before LDP converges?

A. LDP session protection
B. LDP-IGP synchronization
C. BFD
D. IGP session protection

Answer: B

Question No : 3

On the Cisco ASR9K router, when using the bandwidth command to specify the minimum guaranteed bandwidth to be allocated for a specific class of traffic, what will be used as the queuing algorithm?

A. custom queuing
B. CBWFQ
C. WFQ
D. FIFO
E. priority queuing

Answer: B
Explanation:

Class based weighted fair queuing (CB-WFQ) was initially released without the support of a priority queuing system, thus it could not guarantee the delay and jitter (delay variation) requirements of real-time, interactive voice and video conversations. Since for CBWFQ, the weight for a packet belonging to a specific class is derived from the bandwidth assigned to the class, which in turn determines the order in which packets are sent.
All packets are serviced fairly based on weight and no class of packets may be granted strict priority. This scheme poses problems for voice traffic that is largely intolerant of delay, especially variation in delay

Question No : 4

A DSCP value of 41 in decimal corresponds to which IP precedence value?

A. 3 – Flash
B. 4 – Flash Override
C. 5 – Critical
D. 6 – Internet Control
E. 7 – Network Control

Answer: C

Explanation:

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The AF behavior group defines four separate AF classes with Class 4 having the highest priority. Within each class, packets are given a drop precedence (high, medium or low). The combination of classes and drop precedence yields twelve separate DSCP encodings from AF11 through AF43 (see table)

Assured Forwarding (AF) Behavior Group

	Class 1 (lowest)	Class 2	Class 3	Class 4 (highest)
Low Drop	AF11 (DSCP 10)	AF21 (DSCP 18)	AF31 (DSCP 26)	AF41 (DSCP 34)
Med Drop	AF12 (DSCP 12)	AF22 (DSCP 20)	AF32 (DSCP 28)	AF42 (DSCP 36)
High Drop	AF13 (DSCP 14)	AF23 (DSCP 22)	AF33 (DSCP 30)	AF43 (DSCP 38)

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Question No : 5

An engineer has been tasked to configure a guaranteed 2 Mbps of bandwidth for outgoing FTP traffic on interface FastEthernet 1/1/1 on Cisco IOS XR. Which method accomplishes this configuration?

A. configure terminal
class-map FTP_CLASS
match protocol ftp
exit
policy-map POLICY_1
class FTP_CLASS
bandwidth 2000
exit
exit
interface FastEthernet 1/1/1
service-policy output POLICY_1
end
commit
B. configure terminal
class-map FTP_CLASS
match protocol ftp
exit
policy-map POLICY_1
class FTP_CLASS
bandwidth 2000000
exit
exit
interface FastEthernet 1/1/1
service-policy input POLICY_1
end
commit
C. configure terminal
access-list 100 permit ip any any eq 21
policy-map POLICY_1
match ip access-list 100
bandwidth 2000

exit
exit
interface FastEthernet 1/1/1
service-policy output POLICY_1
end
commit
D. configure terminal
policy-map POLICY_1
class FTP_CLASS
match protocol ftp
bandwidth 2000000
exit
exit
interface FastEthernet 1/1/1
service-policy input POLICY_1
end
commit

Answer: A

Question No : 6

Which three mechanisms are used to implement MPLS TE? (Choose three.)

A. tunnel interface
B. CSPF
C. RSVP
D. LDP
E. MP-BGP

Answer: A,B,C

Explanation:

Constrained-Based Shortest Path First (CSPF).

Resource Reservation Protocol - Traffic Engineering is an extension of the resource reservation protocol (RSVP) for traffic engineering.

Question No : 7

Which are typical class-based marking policies that are implemented on service provider IP NGN PE routers?

A. On the PE ingress, classify the customer traffic and then mark with qos-group. On the PE egress, classify based on the qos-group and then mark with mpls exp.
B. On the PE ingress, classify the customer traffic and then mark with mpls exp. On the PE egress, classify based on the mpls exp and then mark with qos-group.
C. On the PE ingress, trust the customer QoS markings. On the PE egress, classify based on the customer QoS markings and then mark with qos-group.
D. On the PE ingress, trust the customer QoS markings. On the PE egress, classify based on the customer QoS markings and then mark with mpls exp.

Answer: A

Question No : 8

A network engineer must analyze RSVP-TE signaling on a syslog server. Which three RSVP messages are valid? (Choose three.)

A. RSVP PATH
B. RSVP RESERVATION
C. RSVP ESTABLISHED
D. RSVP PATH TEAR
E. RSVP KILL
F. RSVP INIT

Answer: A,B,D

Question No : 9

Which configuration fulfills the requirement of configuring LDP with Cisco Nonstop Forwarding on a router with 5 minutes time to hold the forwarding table information and 1 minute retry timer value for an LDP connection?

A. mpls ldp
graceful-restart
graceful-restart forwarding state-holdtime 5
graceful-restart reconnect-timeout 1
interface GigabitEthernet0/0/0/0

!
B. mpls ldp
graceful-restart
graceful-restart forwarding state-holdtime 300
graceful-restart reconnect-timeout 60
interface GigabitEthernet0/0/0/0
!
C. mpls ldp
nsr
graceful-restart
graceful-restart forwarding state-holdtime 300
graceful-restart reconnect-timeout 60
interface GigabitEthernet0/0/0/0
!
D. mpls ldp
nsr
graceful-restart
graceful-restart forwarding state-holdtime 5
graceful-restart reconnect-timeout 1
interface GigabitEthernet0/0/0/0
!

Answer: B

Question No : 10

Which three fields must be the same in an IPv6 header to consider different packets on the same flow? (Choose three.)

A. source port
B. destination address
C. destination port
D. source address
E. flow label
F. transport protocol type

Answer: B,D,E

Question No : 11

Cisco MPLS TE resource attributes that are configured locally for each link are distributed to the headend router of the traffic engineering tunnel using which protocol?

A. BGP
B. MP-BGP
C. LDP
D. RSVP
E. OSPF or IS-IS with TE extension

Answer: E

Question No : 12

Which Cisco IOS XR command should be used in order to enable LDP on all interfaces for which the IGP protocol is enabled?

A. RP/0/0/CPU0:R1(config-ospf)#mpls ldp auto-config
B. RP/0/0/CPU0:R1(config-ospf)#mpls ldp interface all enable
C. RP/0/0/CPU0:R1(config-ospf)#enable all
D. RP/0/0/CPU0:R1(config-ldp)#enable all

Answer: A

Question No : 13

The regional operation center deploys a Cisco MPLS TE tunnel over the company's core network. The Cisco MPLS TE tunnel is up and no error is detected, but no traffic is traversing the tunnel. Which two issues are possible causes? (Choose two.)

A. The provider edge router is not performing the correct redistribution.
B. The interior gateway protocol has no knowledge of the Cisco MPLS TE tunnel.
C. No static route has been defined to route data traffic over the Cisco MPLS TE tunnel.
D. The customer edge router is injecting rogue IPv4 prefixes in the provider edge routing table.
E. The end-to-end label switched path has not been established.

Answer: B,C

Question No : 14

An engineer has been tasked to configure a guaranteed 10 Mbps priority queue for traffic matched by class-map VOICE_CLASS on Cisco IOS XR. Which policy must be applied for outgoing traffic on interface FastEthernet 0/0/1?

A. configure

policy-map VOICE_POLICY

class VOICE_CLASS

police rate 10000

exceed-action drop

exit

priority level 1

exit

exit

interface FastEthernet 0/0/1

service-policy output VOICE_POLICY

commit

B. configure

policy-map VOICE_POLICY

class VOICE_CLASS

priority percent 10

exit

exit

interface FastEthernet 0/0/1

service-policy output VOICE_POLICY

commit

C. configure

policy-map VOICE_POLICY

class VOICE_CLASS

police rate 1000

exceed-action drop

exit

priority level 1

exit

exit

interface FastEthernet 0/0/1

service-policy output VOICE_POLICY

commit

D. configure

policy-map VOICE_POLICY

class VOICE_CLASS

police rate 10 Mbps

exceed-action shape

exit

priority level 1
exit
exit
interface FastEthernet 0/0/1
service-policy output VOICE_POLICY
commit

Answer: A

Question No : 15

Which two features are used to provide Cisco MPLS TE node and link protection? (Choose two.)

A. autoroute
B. fast reroute
C. backup tunnels
D. BFD

Answer: B,C

Question No : 16

On the Cisco IOS XR, when using the match protocol command within a class-map to classify traffic, you noticed that the match protocol option on the Cisco IOS XR shows much fewer protocol options than on the Cisco IOS or IOS XE, like there is no option such as the match protocol yahoo-messenger command on the Cisco IOS XR. Why is this?

A. because the Cisco IOS XR router does not have the correct software packages installed
B. because when defining the class-map, the class-map type should be set to type inspect: class-map type inspect class-map-name command
C. because NBAR is not supported on the Cisco IOS XR
D. because flexible packet matching has not been enabled on the Cisco IOS XR router

Answer: C

Question No : 17