

# Cisco

## Exam 642-883

### Deploying Cisco Service Provider Network Routing (SPROUTE)

Version: 7.0

[ Total Questions: 130 ]

**Question No : 1**

When redistributing EIGRP routes into OSPF as type E2 external OSPF routes, what is the default OSPF seed metric?

- A. Infinite
- B. 0
- C. 1
- D. 10
- E. 20

**Answer: E**

**Question No : 2 DRAG DROP**

Drag the BGP attributes on the left to match the correct description on the right.

Weight	Only used within an AS and has a default value of 100.
MED	Can use the prepending feature to influence inbound traffic flow.
Local Preference	The lower of this value is the more desirable value. Used to influence the incoming traffic flow from the neighbor autonomous systems.
AS-Path	Proprietary to Cisco and not sent to any BGP peers. It is local to the router only.

**Answer:**

Drag the BGP attributes on the left to match the correct description on the right.

Weight	Local Preference
MED	AS-Path
Local Preference	MED
AS-Path	Weight

**Question No : 3**

Refer to the Cisco IOS-XR route policy exhibit.

```

route-policy setcomm
if community matches-any (11:11, 44:44) then
set community (55:55) additive
elseif community matches-any (22:22) then
set community (77:77) additive
endif
    
```

Which statement correctly describes this route policy?

- A. The pass action is required after each of the set community statements to make this route policy functional.
- B. If a route has both the 11:11 and 22:22 communities (or 44:44 and 22:22), the router adds the 55:55 community only.
- C. If a route contains the 11:11 or 44:44 community, the router adds the 55:55 community and continues. Additionally, if the same route also contains the 22:22 community, the router also adds another 77:77 community to the same route.
- D. If a route only has the 22:22 community, then no community will be added by the router.
- E. If a route only has the 11:11 or 44:44 community, then no community will be added by the router.

Answer: B

**Question No : 4 DRAG DROP**

Refer to the IS-IS topology diagram. You are tasked with troubleshooting IS-IS configurations errors. Drag the router on the left to match the most optimal IS-IS router type it should use on the right.

R1
R2
R3
R4
R5

L1
Target
Target
L2
Target
L1/L2
Target
Target

Answer:

Refer to the IS-IS topology diagram. You are tasked with troubleshooting IS-IS configurations errors. Drag the router on the left to match the most optimal IS-IS router type it should use on the right.

R1	L1
R2	R1
R3	R4
R4	L2
R5	R5
	L1/L2
	R2
	R3

Question No : 5

What are two consequences of having constant link flaps, resulting in the OSPF neighbor adjacencies going up and down repeatedly? (Choose two.)

- A. routes getting into the "Stuck In Active" state
- B. constant flooding of LSAs
- C. OSPF route dampening to occur
- D. many SPF recalculations
- E. routing loops may temporarily be introduced into the network

Answer: B,D

Question No : 6 DRAG DROP

Drag the BGP attributes on the left to the boxes on the right in the correct order. The attribute that is used first during the BGP route selection process should be the top box on the right, and the attribute that is used last should be the bottom box on the right.

MED	Target
Weight	Target
AS-Path Length	Target
Local Preference	Target

**Answer:**

Drag the BGP attributes on the left to the boxes on the right in the correct order. The attribute that is used first during the BGP route selection process should be the top box on the right, and the attribute that is used last should be the bottom box on the right.

MED	Weight
Weight	Local Preference
AS-Path Length	AS-Path Length
Local Preference	MED

**Question No : 7**

Which OSPF feature allows a router with redundant route processors to maintain its OSPF state and adjacencies across planned and unplanned RP switchovers and does this by checkpointing state information from OSPF on the active RP to the standby RP? This feature does not require the OSPF neighbor to support graceful restart.

- A. NSR
- B. NSF
- C. BFD
- D. MTR
- E. SDR

**Answer: A****Explanation:**

Continuous Forwarding

An important aspect of high availability is maintenance of traffic forwarding, even in the case of control-plane switchovers. Cisco IOS XR Software has several built-in features that can provide continuous forwarding, including RSP stateful switchover (SSO), Nonstop Forwarding (NSF), Graceful Restart, and NSR.

NSF: Cisco IOS XR Software supports forwarding without traffic loss during a brief outage of the control plane through signaling and routing protocol implementations for Graceful Restart extensions as standardized by the IETF. In addition to standards compliance, this implementation has been compatibility tested with Cisco IOS Software and third-party operating systems.

Graceful Restart: This control-plane mechanism ensures high availability by allowing detection and recovery from failure conditions while preserving NSF services. Graceful Restart is a way to recover from signaling and control-plane failures without affecting the forwarding plane. Cisco IOS XR Software uses this feature and a combination of check

pointing, mirroring, RSP redundancy, and other system resiliency features to recover prior to timeout and avoid service downtime as a result of network convergence.

**NSR:** This feature allows for the forwarding of data packets to continue along known routes while the routing protocol information is being refreshed following a processor switchover.

NSR maintains protocol sessions and state information across SSO functions for services such as Multiprotocol Label Switching (MPLS) VPN. TCP connections and the routing protocol sessions are migrated from the active RSP to the standby RSP after the RSP failover without letting the peers know about the failover. The sessions terminate locally on the failed RSP, and the protocols running on the standby RSP reestablish the sessions after the standby RSP goes active, without the peer detecting the change. You can also use NSR with Graceful Restart to protect the routing control plane during switchovers. The Cisco IOS XR Operating System provides system resiliency through a comprehensive set of high-availability features including modularity, process restart, fault handling, continuous forwarding, and upgradability.

### Question No : 8 DRAG DROP

Drag the prefix list configuration on the left to match the correct description on the right. Not all options on the left are used.

ipv4 prefix-list one permit 255.255.255.255/32	Match the default route
ipv4 prefix-list one permit 0.0.0.0/0	Match any /25 to /32 prefixes
ipv4 prefix-list one permit 0.0.0.0/32	Match all routes
ipv4 prefix-list one permit 0.0.0.0/0 le 25	Match any host routes
ipv4 prefix-list one permit 0.0.0.0/0 ge 25	
ipv4 prefix-list one permit 0.0.0.255/24	
ipv4 prefix-list one permit 0.0.0.128/25 le 32	

**Answer:**

Drag the prefix list configuration on the left to match the correct description on the right. Not all options on the left are used.

ipv4 prefix-list one permit 255.255.255.255/32	ipv4 prefix-list one permit 0.0.0.0/0
ipv4 prefix-list one permit 0.0.0.0/0	ipv4 prefix-list one permit 0.0.0.0/0 ge 25
ipv4 prefix-list one permit 0.0.0.0/32	ipv4 prefix-list one permit 0.0.0.0/0 le 32
ipv4 prefix-list one permit 0.0.0.0/0 le 32	ipv4 prefix-list one permit 0.0.0.0/32
ipv4 prefix-list one permit 0.0.0.0/0 ge 25	
ipv4 prefix-list one permit 0.0.0.255/24	
ipv4 prefix-list one permit 0.0.0.128/25 le 32	

### Question No : 9

What is defined by using the Cisco IOS XR policy-global configuration command?

- A. the default BGP route policy
- B. global variables that can be referenced by any route policy
- C. the global default route policy
- D. hierarchical route policy
- E. nested route policy

**Answer: B**

#### Explanation:

Global Configuration Mode

Prompt: (config)

Enter global configuration mode from executive (EXEC) mode by using the configure command. Global configuration commands generally apply to the whole system rather than just one protocol or interface. You can enter all other configuration submodes listed in this section from global configuration mode.

RP/0/RP0/CPU0:router# configure

RP/0/RP0/CPU0:router(config)#

Global Parameter Configuration Mode

Prompt: (config-rpl-gl)

Enter global parameter configuration mode by using the policy-global command in global configuration mode.

In global parameter configuration mode, you can create or modify a global policy by

entering successive commands and then terminating the configuration by entering the end-global command.

For example, to configure global parameters:

```
RP/0/RP0/CPU0:router(config)# policy-global
RP/0/RP0/CPU0:router(config-rp-gl)# glbpathype ebgp
RP/0/RP0/CPU0:router(config-rp-gl)# glbtag 100
RP/0/RP0/CPU0:router(config-rp-gl)# end-global
```

### Question No : 10

When using the Cisco IOS XR route policy language to define a logical if-then-else condition, which logical operator has the highest precedence?

- A. AND
- B. OR
- C. NOT
- D. IS
- E. IN

**Answer: C**

**Explanation:**

[http://www.cisco.com/en/US/docs/ios\\_xr\\_sw/iosxr\\_r3.0/routing/configuration/guide/rc3rpl.html](http://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r3.0/routing/configuration/guide/rc3rpl.html)

#### Boolean Operator Precedence

Boolean expressions are evaluated in order of operator precedence, from left to right. The highest precedence operator is not, followed by and, and then or. The following expression:

```
med eq 10 and not destination in (10.1.3.0/24) or community matches-any ([10..25]:35)
```

if fully parenthesized to display the order of evaluation would look like this:

```
(med eq 10 and (not destination in (10.1.3.0/24))) or community matches-any ([10..25]:35)
```

The inner not applies only to the destination test; the and combines the result of the not expression with the Multi Exit Discriminator (MED) test; and the or combines that result with the community test. If the order of operations are rearranged:

```
not med eq 10 and destination in (10.1.3.0/24) or community matches-any ([10..25]:35)
```

then the expression, fully parenthesized, would look like the following:

```
((not med eq 10) and destination in (10.1.3.0/24)) or community matches-any ([10..25]:35)
```

C:\Documents and Settings\user-nwz\Desktop\1.JPG



**Question No : 11**

Which option describes the configuration for a Cisco IOS XR OSPF router to give it the highest chances of becoming DR?

- A. ip ospf priority 0 under the OSPF interface statement
- B. ip ospf priority 0 under the OSPF area statement
- C. ip ospf priority 255 under the OSPF interface statement
- D. ip ospf priority 255 under the OSPF area statement
- E. Leave priority unchanged, but assign a high-numbered IP address on a loopback interface.
- F. Leave priority unchanged, but assign a high-numbered IP address on any physical interface.

**Answer: C**

**Question No : 12**

Which of the following is used by an IS-IS router to detect other IS-IS neighbor routers and to form adjacencies?

- A. ESH
- B. ISH
- C. IIH
- D. PSNP
- E. CSNP

**Answer: C**

**Explanation:**

ISIS actually features three different hello types

An ES Hello (ESH) is send by all End Systems, and all IS devices listen for this Hello

An IS Hello (ISH) announces the presence of an IS - An IS Hello is sent by all IS devices, and End Systems listen for these hellos Finally, an IS-to-IS Hello (IIH) is used by an IS to

discover other ISes and to form adjacencies with them A router will send an IIH to another router on the link to form or maintain an adjacency, but it will still send an ISH as well in case there are end systems located on that segment

**Question No : 13**

Refer to the route policies exhibit.

```
route-policy one
end-policy
!
route-policy two
pass
end-policy
!
route-policy three
drop
end-policy
!
route-policy four
set weight 100
end-policy
!
route-policy five
pass
drop
pass
end-policy
!
```

Which five route policies will cause the routes to be dropped or passed? (Choose five)

- A. route-policy one will cause the routes to be dropped.
- B. route-policy two will cause the routes to be dropped.
- C. route-policy three will cause the routes to be dropped.
- D. route-policy four will cause the routes to be dropped.
- E. route-policy five will cause the routes to be dropped.
- F. route-policy one will cause the routes to be passed.
- G. route-policy two will cause the routes to be passed.
- H. route-policy three will cause the routes to be passed.
- I. route-policy four will cause the routes to be passed.