

Chapter 4: Quiz – Multiple Spanning Tree Protocol (Answers) CCNPv8 ENCOR

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37. Assuming that all switches in a network have the default bridge priority for each MST instance, what effect does the command `spanning-tree mst 10 root primary` have when entered on a single switch?

- sets the bridge priority on the switch to 24586 for MST instance 10
- **sets the bridge priority on the switch to 24576 for MST instance 10**
- sets the bridge priority on the switch to 28672 for MST instance 10
- sets the bridge priority on the switch to 24582 for MST instance 10

Explanation: In MST configuration, an MST instance priority can be defined in one of two methods:

- **`spanning-tree mst instance-number priority priority`**, where the priority is a value between 0 and 61,440, in increments of 4096
- **`spanning-tree mst instance-number root {primary | secondary}[diameter diameter]`**, where the primary keyword sets the priority to 24,576, and the secondary keyword sets the priority to 28,672

38. Which number is assigned to the internal spanning tree MST instance?

- **0**
- 1
- 15
- 16

Explanation: MST uses a special STP instance called the internal spanning tree (IST), which is always the first instance, instance 0.

39. A network administrator is configuring MST on switch SW1 to change VLANs mapping to instances. Under which configuration mode should the administrator enter the `instance instance-number vlan vlan-id` command?

- SW1#
- SW1(config)#
- SW1(config-if)#
- **SW1(config-mst)#**

Explanation: To map VLANs to an MST instance, the MST configuration submode must be entered with the command `spanning-tree mst configuration`. The prompt is changed to SW1(config-mst)#. VLANs are assigned to a different MST instance with the command `instance instance-number vlan vlan-id`.

40. How many MST instances are supported by Cisco switches by default?

- 8
- **16**
- 32
- 64

Explanation: Cisco supports up to 16 MST instances by default. These MST instances are numbered 0 to 15.

41. Which term is used to describe a grouping of MST switches with the same high-level configuration?

- **region**
- domain
- instance
- container

Explanation: A grouping of MST switches with the same high-level configuration is known as an MST region.

42. What is a parameter that must match for all switches in the same MST region?

- IOS version
- **region name**
- switch model
- bridge priority

Explanation: The MST region name must match for all switches in the same MST region. This parameter can be adjusted through the MST configuration.

43. What are two misconfigurations within an MST region that might introduce port blocking unintentionally? (Choose two.)

- **trunk link pruning**
- **VLAN assignment to the IST**
- too many VLANs assigned to an instance
- misconfigured region name across the MST region
- misconfigured revision number across the MST region

Explanation: VLAN assignment to the IST and trunk link pruning are two common misconfigurations within the MST region. A misconfigured region name or misconfigured revision number will cause the failure in forming the MST region.

44. Refer to the exhibit. A network administrator issues the `show spanning-tree mst configuration` command to verify the MST configuration. How many VLANs are assigned to IST?

SW1# show spanning-tree mst configuration	
Name	[ENTERPRISE]
Revision	2 Instances configured 3
Instance	Vlans mapped

0	1-9, 11-19, 21-29, 41-98, 100-4094
1	10-20, 30-40
2	99

- 4071
- 4072
- 4073
- 4094

Explanation: By default, all VLANs are assigned to IST before VLANs are assigned to other instances. In the configuration shown, IST contains all VLANs except for the 23 VLANs assigned to instances 1 and 2, which is 4071 VLANs.

45. What is a solution to mitigate the MST misconfiguration caused by improper trunk link pruning?

- Allow the VLANs associated with the IST on all trunk links.
- Move the affected VLAN to an MSTI instance other than the IST.
- Ensure that the MST region name is consistent across MST regions.
- **Ensure that only VLANs in the same MSTI for a trunk link are pruned.**

Explanation: An effective approach to mitigate the MST misconfiguration caused by improper trunk link pruning is to only prune all the VLANs in the same MSTI for a trunk link.

46. Which two scenarios are examples of MST region boundaries? (Choose two.)

- a port connected to a server
- a port connected to a trunk link
- a port connected to a workstation
- **a port connected to another switch that runs RSTP**
- **a port connected to another switch in a different MST region**

Explanation: An MST region boundary is any port that connects to a switch that is in a different MST region or that connects to 802.1D (original STP) or 802.1W (RSTP) BPDUs.

47. What is a solution to mitigate the MST misconfiguration that contains improper VLAN assignment to the IST?

- Move all active VLANs to the IST.
- **Allow the VLANs associated with the IST on all trunk links.**
- Ensure that the MST region name is consistent across MST regions.
- Ensure that only VLANs in the same MSTI for a trunk link are pruned.

Explanation: Two solutions to mitigate the MST misconfiguration caused by improper VLAN assignment to the IST are as follows:

- Move affected VLANs to an MSTI other than the IST.
- Allow the VLANs associated with the IST on all trunk links.

48. What is the default MST region name on Cisco switches?

- cisco
- region
- mst_region
- **an empty string**

Explanation: MST regions are recognized by switches that share a common name. By default, a region name is an empty string.