

ISLEVER

# 200-101

Interconnecting Cisco Networking Devices Part  
2 (ICND2)

DEMO

<https://www.islever.com/200-101.html>

<https://www.islever.com/cisco.html>

For the most up-to-date exam questions and materials, we recommend visiting our website, where you can access the latest content and resources.

---

## Topic 1, LAN Switching Technologies

### QUESTION NO: 1

Refer to the exhibit.

```
Switch# show spanning-tree vlan 1
VLAN0001
Spanning tree enabled protocol rstp
  Root ID    Priority    20481
             Address    0008.217a.5800
             Cost      38
             Port      1 (FastEthernet0/1)
             Hello Time 2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
             Address    0008.205e.6600
             Hello Time 2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300

Interface        Role Sts Cost      Prio.Mbr Type
-----
Fa0/1            Root FWD 19        128.1   P2p
Fa0/4            Desg FWD 38        128.1   P2p
Fa0/11          Altn BLK 57        128.1   P2p
Fa0/13          Desg FWD 38        128.1   P2p
```

Why has this switch not been elected the root bridge for VLAN1?

- A. It has more than one interface that is connected to the root network segment.
- B. It is running RSTP while the elected root bridge is running 802.1d spanning tree.
- C. It has a higher MAC address than the elected root bridge.
- D. It has a higher bridge ID than the elected root bridge.

**Answer: D**

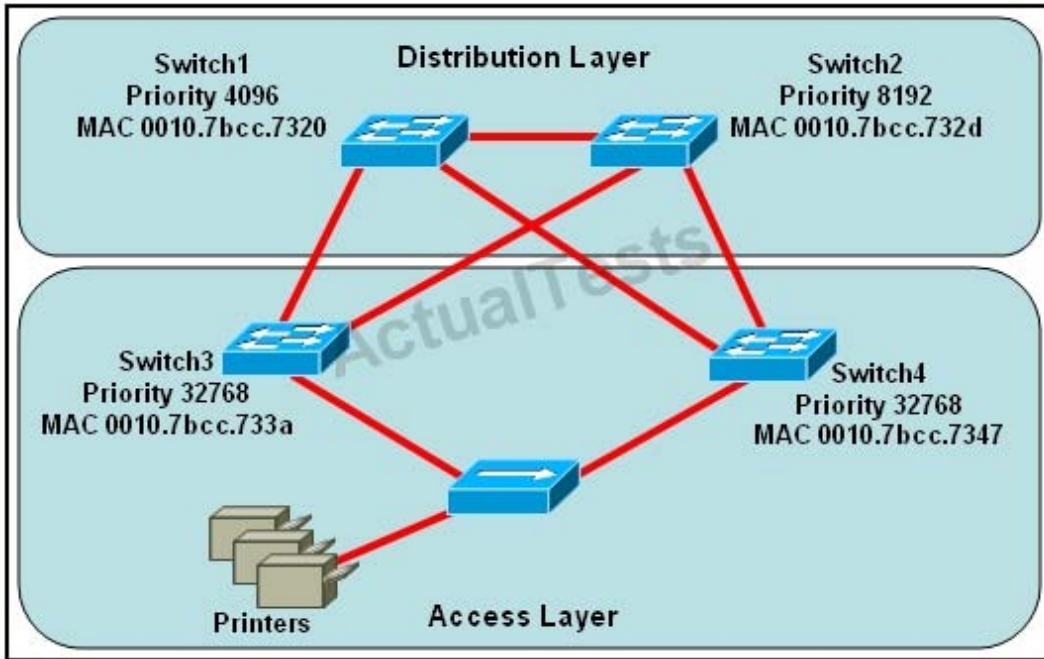
**Explanation:**

[http://www.cisco.com/en/US/tech/tk389/tk621/technologies\\_tech\\_note09186a008009482f.shtml](http://www.cisco.com/en/US/tech/tk389/tk621/technologies_tech_note09186a008009482f.shtml)

When a switch receives a BPDU, it first compares priority, the lower number wins. If a tie, compare MAC, the smaller one wins. Here Switch has 32769 priority which is greater than 20481 so switch will not elect for root bridge. It says the bridge priority for Switch is 32769, and the root priority is 20481. Which means that some other switch has the lower priority and won the election for VLAN 1.

### QUESTION NO: 2

Refer to the exhibit



Which switch provides the spanning-tree designated port role for the network segment that services the printers?

- A. Switch1
- B. Switch2
- C. Switch3
- D. Switch4

**Answer: C**

**Explanation:**

First, the question asks what switch services the printers, so it can be Switch 3 or Switch 4 which is connected directly to the Printers.

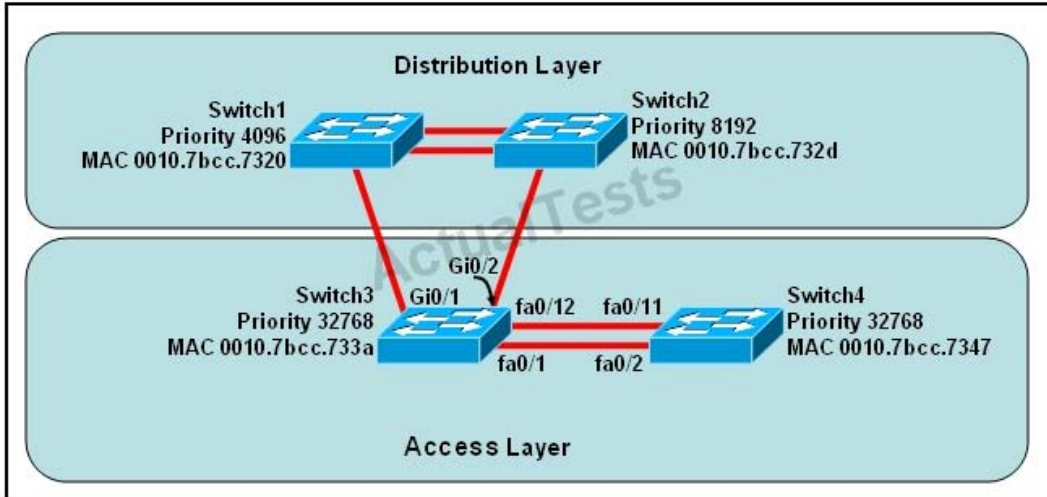
Designated port is a port that is in the forwarding state. All ports of the root bridge are designated ports.

Switch 3 and Switch 4 has same priority so it will see on lowest MAC address and here switch 3 has lowest MAC address. So switch 3 segment will play a Designated port role.

By comparing the MAC address of Switch 3 and Switch 4 we found that the MAC of Switch 3 is smaller. Therefore the interface connected to the Printers of Switch 3 will become designated interface and the interface of Switch 4 will be blocked.

**QUESTION NO: 3**

Refer to the exhibit.



At the end of an RSTP election process, which access layer switch port will assume the discarding role?

- A. Switch3, port fa0/1
- B. Switch3, port fa0/12
- C. Switch4, port fa0/11
- D. Switch4, port fa0/2
- E. Switch3, port Gi0/1
- F. Switch3, port Gi0/2

**Answer: C**

**Explanation:** In this question, we only care about the Access Layer switches (Switch3 & 4). Switch 3 has a lower bridge ID than Switch 4 (because the MAC of Switch3 is smaller than that of Switch4) so both ports of Switch3 will be in forwarding state. The alternative port will surely belong to Switch4.

Switch4 will need to block one of its ports to avoid a bridging loop between the two switches. But how does Switch4 select its blocked port? Well, the answer is based on the BPDUs it receives from Switch3. A BPDU is superior than another if it has:

- 1. A lower Root Bridge ID
- 2. A lower path cost to the Root
- 3. A lower Sending Bridge ID
- 4. A lower Sending Port ID

These four parameters are examined in order. In this specific case, all the BPDUs sent by Switch3 have the same Root Bridge ID, the same path cost to the Root and the same Sending Bridge ID. The only parameter left to select the best one is the Sending Port ID (Port ID = port priority + port