

## [2017 New Lead2pass Free 200-105 Exam Questions Download 100% Pass 200-105 Exam (301-325)]

2017 June Cisco Official New Released **200-105** Dumps in Lead2pass.com! 100% Free Download! 100% Pass Guaranteed! Cisco 200-105 exam is very popular in Cisco field, many Cisco candidates choose this exam to add their credentials. There are many resource online to offering Cisco 200-105 exam questions, through many good feedbacks, we conclude that Lead2pass can help you pass your test easily with Cisco 200-105 exam questions. Choose Lead2pass to get your Cisco 200-105 certification. Following questions and answers are all new published by Cisco Official Exam Center: <http://www.lead2pass.com/200-105.html> QUESTION 301 Which port state is introduced by Rapid-PVST? A. learning B. listening C. discarding D. forwarding Answer:

CE Explanation: Spanning Tree from PVST+ to Rapid-PVST Migration Configuration Example Reference 1:

[http://www.cisco.com/en/US/products/hw/switches/ps708/products\\_configuration\\_example09186a00807b0670.shtml](http://www.cisco.com/en/US/products/hw/switches/ps708/products_configuration_example09186a00807b0670.shtml) Reference 2:

[http://www.cisco.com/en/US/tech/tk389/tk621/technologies\\_white\\_paper09186a0080094cfa.shtml](http://www.cisco.com/en/US/tech/tk389/tk621/technologies_white_paper09186a0080094cfa.shtml) PVST+ is based on IEEE 802.1D

Spanning Tree Protocol (STP). But PVST+ has only 3 port states (discarding, learning and forwarding) while STP has 5 port states (blocking, listening, learning, forwarding and disabled). So discarding is a new port state in PVST+. Background

Information 802.1D Spanning Tree Protocol (STP) has a drawback of slow convergence. Cisco Catalyst switches support three types

of STPs, which are PVST+, rapid-PVST+ and MST. PVST+ is based on IEEE 802.1D standard and includes Cisco proprietary

extensions such as BackboneFast, UplinkFast, and PortFast. Rapid-PVST+ is based on IEEE 802.1w standard and has a faster

convergence than 802.1D. RSTP (IEEE 802.1w) natively includes most of the Cisco proprietary enhancements to the 802.1D

Spanning Tree, such as BackboneFast and UplinkFast. Rapid-PVST+ has these unique features: Uses Bridge Protocol Data Unit

(BPDU) version 2 which is backward compatible with the 802.1D STP, which uses BPDU version 0. All the switches generate

BPDU and send out on all the ports every 2 seconds, whereas in 802.1D STP only the root bridge sends the configuration BPDU.

Port Roles--Root port, designated port, alternate port and backup port. Port States--Discarding, Learning, and Forwarding. Port

Types--Edge Port (PortFast), Point-to-Point and Shared port. Rapid-PVST uses RSTP to provide faster convergence. When any

RSTP port receives legacy 802.1D BPDU, it falls back to legacy STP and the inherent fast convergence benefits of 802.1w are lost

when it interacts with legacy bridges. QUESTION 302 Refer to the exhibit. Each of these four switches has been configured with a

hostname, as well as being configured to run RSTP. No other configuration changes have been made. Which three of these show the

correct RSTP port roles for the indicated switches and interfaces? (Choose three.) A. SwitchA, Fa0/2, designated B. SwitchA,

Fa0/1, root C. SwitchB, Gi0/2, root D. SwitchB, Gi0/1, designated E. SwitchC, Fa0/2, root F. SwitchD, Gi0/2, root Answer:

ABF Explanation: The question says "no other configuration changes have been made" so we can understand these switches have the

same bridge priority. SwitchC has lowest MAC address so, it will become root bridge and 2 of its ports (Fa0/1 & Fa0/2) will be

designated ports (DP). Because SwitchC is the root bridge the 2 ports nearest SwitchC on SwitchA (Fa0/1) and SwitchD (Gi0/2) will

be root ports (RP) -> B and F are correct. SwitchB must have a root port so which port will it choose? To answer this question we

need to know about STP cost and port cost. In general, "cost" is calculated based on bandwidth of the link. The higher the bandwidth

on a link, the lower the value of its cost. Below are the cost values you should memorize: Link speed Cost SwitchB will choose the

interface with lower cost to the root bridge as the root port so we must calculate the cost on interface Gi0/1 & Gi0/2 of SwitchB to

the root bridge. This can be calculated from the "cost to the root bridge" of each switch because a switch always advertises its cost to

the root bridge in its BPDU. The receiving switch will add its local port cost value to the cost in the BPDU. SwitchC advertises its

cost to the root bridge with a value of 0. Switch D adds 4 (the cost value of 1Gbps link) and advertises this value (4) to SwitchB.

SwitchB adds another 4 and learns that it can reach SwitchC via Gi0/1 port with a total cost of 8. The same process happens for

SwitchA and SwitchB learns that it can reach SwitchC via Gi0/2 with a total cost of 23 -> Switch B chooses Gi0/1 as its root port.

Now our last task is to identify the port roles of the ports between SwitchA & SwitchB. It is rather easy as the MAC address of

SwitchA is lower than that of SwitchB so Fa0/2 of SwitchA will be designated port while Gi0/2 of SwitchB will be alternative port.

QUESTION 303 Which two states are the port states when RSTP has converged? (Choose two.) A. discarding B. listening C.

learning D. forwarding E. disabled Answer: AD Explanation: Understanding Rapid Spanning Tree Protocol (802.1w)

[http://www.cisco.com/en/US/tech/tk389/tk621/technologies\\_white\\_paper09186a0080094cfa.shtml](http://www.cisco.com/en/US/tech/tk389/tk621/technologies_white_paper09186a0080094cfa.shtml) Port States There are only three

port states left in RSTP that correspond to the three possible operational states. The 802.1D disabled, blocking, and listening states

are merged into a unique 802.1w discarding state. RSTP only has 3 port states which are discarding, learning and forwarding. When

RSTP has converged there are only 2 port states left: discarding and forwarding. QUESTION 304 Which three statements about

RSTP are true? (Choose three.) A. RSTP significantly reduces topology reconverging time after a link failure. B. RSTP expands

the STP port roles by adding the alternate and backup roles. C. RSTP port states are blocking, discarding, learning, or

forwarding.D. RSTP provides a faster transition to the forwarding state on point-to-point links than STP does.E. RSTP also uses the STP proposal-agreement sequence.F. RSTP uses the same timer-based process as STP on point-to-point links. Answer: ABDEExplanation:[http://www.cisco.com/en/US/tech/tk389/tk621/technologies\\_white\\_paper09186a0080094cfa.shtml](http://www.cisco.com/en/US/tech/tk389/tk621/technologies_white_paper09186a0080094cfa.shtml)

ConvergenceCisco enhanced the original 802.1D specification with features such as Uplink Fast, Backbone Fast, and Port Fast to speed up the convergence time of a bridged network. The drawback is that these mechanisms are proprietary and need additional configuration.

Alternate and Backup Port RolesThese two port roles correspond to the blocking state of 802.1D. A blocked port is defined as not being the designated or root port. A blocked port receives a more useful BPDU than the one it sends out on its segment.Remember that a port absolutely needs to receive BPDUs in order to stay blocked. RSTP introduces these two roles for this purpose.

Rapid Transition to Forwarding StateRapid transition is the most important feature introduced by 802.1w. The legacy STA passively waited for the network to converge before it turned a port into the forwarding state. The achievement of faster convergence was a matter of tuning the conservative default parameters (forward delay and max\_age timers) and often put the stability of the network at stake. The new rapid STP is able to actively confirm that a port can safely transition to the forwarding state without having to rely on any timer configuration. There is now a real feedback mechanism that takes place between RSTP-compliant bridges. In order to achieve fast convergence on a port, the protocol relies upon two new variables: edge ports and link type.

QUESTION 305At which layer of the OSI model is RSTP used to prevent loops? A. physicalB. data linkC. networkD. transport Answer: BExplanation:RSTP and STP operate on switches and are based on the exchange of Bridge Protocol Data Units (BPDUs) between switches. One of the most important fields in BPDUs is the Bridge Priority in which the MAC address is used to elect the Root Bridge , RSTP operates at Layer 2.

[http://www.cisco.com/en/US/tech/tk389/tk621/technologies\\_white\\_paper09186a0080094cfa.shtml](http://www.cisco.com/en/US/tech/tk389/tk621/technologies_white_paper09186a0080094cfa.shtml)

QUESTION 306What is one benefit of PVST+? A. PVST+ supports Layer 3 load balancing without loops.B. PVST+ reduces the CPU cycles for all the switches in the network.C. PVST+ allows the root switch location to be optimized per VLAN.D. PVST+ automatically selects the root bridge location, to provide optimized bandwidth usage. Answer: CExplanation:Per VLAN Spanning Tree (PVST)Introduction[http://www.cisco.com/en/US/tech/tk389/tk621/tk846/tsd\\_technology\\_support\\_sub-protocol\\_home.html](http://www.cisco.com/en/US/tech/tk389/tk621/tk846/tsd_technology_support_sub-protocol_home.html)

Per VLAN Spanning Tree (PVST) maintains a spanning tree instance for each VLAN configured in the network. It means a switch can be the root bridge of a VLAN while another switch can be the root bridge of other VLANs in a common topology. For example, Switch 1 can be the root bridge for Voice data while Switch 2 can be the root bridge for Video data. If designed correctly, it can optimize the network traffic.

<http://www.ciscopress.com/articles/article.asp?p=102157&seqNum=4>

QUESTION 307What are three characteristics of the OSPF routing protocol? (Choose three.) A. It converges quickly.B. OSPF is a classful routing protocol.C. It uses cost to determine the best route.D. It uses the DUAL algorithm to determine the best route.E. OSPF routers send the complete routing table to all directly attached routers.F. OSPF routers discover neighbors before exchanging routing information. Answer: ACEExplanation:Open Shortest Path FirstReference:[http://docwiki.cisco.com/wiki/Open\\_Shortest\\_Path\\_First](http://docwiki.cisco.com/wiki/Open_Shortest_Path_First)

Additional OSPF features include equal-cost, multipath routing, and routing based on upper-layer type-of-service (TOS) requests. TOS-based routing supports those upper-layer protocols that can specify particular types of service. An application, for example, might specify that certain data is urgent. If OSPF has high-priority links at its disposal, these can be used to transport the urgent datagram.OSPF supports one or more metrics. If only one metric is used, it is considered to be arbitrary, and TOS is not supported. If more than one metric is used, TOS is optionally supported through the use of a separate metric (and, therefore, a separate routing table) for each of the eight combinations created by the three IP TOS bits (the delay, throughput, and reliability bits). For example, if the IP TOS bits specify low delay, low throughput, and high reliability, OSPF calculates routes to all destinations based on this TOS designation. IP subnet masks are included with each advertised destination, enabling variable-length subnet masks. With variable-length subnet masks, an IP network can be broken into many subnets of various sizes. This provides network administrators with extra network-configuration flexibility.

QUESTION 308Which statement is true, as relates to classful or classless routing? A. Classful routing protocols send the subnet mask in routing updates.B. RIPv1 and OSPF are classless routing protocols.C. Automatic summarization at classful boundaries can cause problems on discontinuous subnets.D. EIGRP and OSPF are classful routing protocols and summarize routes by default. Answer: CExplanation:RIPv1, RIPv2, IGRP, and EIGRP all auto-summarize classful boundaries by default (OSPF does not).To make discontinuous networks work, meaning you don't want classful boundaries to summarize, you need to turn off auto-summary. <http://www.ciscopress.com/articles/article.asp?p=174107&seqNum=3>

QUESTION 309Which parameter or parameters are used to calculate OSPF cost in Cisco routers? A. BandwidthB. Bandwidth and DelayC. Bandwidth, Delay, and MTUD. Bandwidth, MTU, Reliability, Delay, and Load Answer: AExplanation:[http://www.cisco.com/en/US/tech/tk365/technologies\\_white\\_paper09186a0080094e9e.shtml#t6](http://www.cisco.com/en/US/tech/tk365/technologies_white_paper09186a0080094e9e.shtml#t6)

OSPF CostThe cost (also called metric) of an interface in OSPF is an indication of the overhead required to send packets across a certain interface. The cost of an

interface is inversely proportional to the bandwidth of that interface. A higher bandwidth indicates a lower cost. There is more overhead (higher cost) and time delays involved in crossing a 56k serial line than crossing a 10M Ethernet line. The formula used to calculate the cost is:  $\text{Cost} = 100000000 / \text{bandwidth in bps}$  For example, it will cost  $10 \text{ EXP}8 / 10 \text{ EXP}7 = 10$  to cross a 10M Ethernet line and will cost  $10 \text{ EXP}8 / 1544000 = 64$  to cross a T1 line. By default, the cost of an interface is calculated based on the bandwidth; you can force the cost of an interface with the `ip ospf cost <value> interface sub configuration mode` command.

**QUESTION 310** Which statements are true about EIGRP successor routes? (Choose two.)  
A. A successor route is used by EIGRP to forward traffic to a destination.  
B. Successor routes are saved in the topology table to be used if the primary route fails.  
C. Successor routes are flagged as 'active' in the routing table.  
D. A successor route may be backed up by a feasible successor route.  
E. Successor routes are stored in the neighbor table following the discovery process.

**Answer: AD**  
**Explanation:** Introduction to EIGRP  
[http://www.cisco.com/en/US/tech/tk365/technologies\\_tech\\_note09186a0080093f07.shtml](http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a0080093f07.shtml)  
Feasible Successors A destination entry is moved from the topology table to the routing table when there is a feasible successor. All minimum cost paths to the destination form a set. From this set, the neighbors that have an advertised metric less than the current routing table metric are considered feasible successors. Feasible successors are viewed by a router as neighbors that are downstream with respect to the destination. These neighbors and the associated metrics are placed in the forwarding table. When a neighbor changes the metric it has been advertising or a topology change occurs in the network, the set of feasible successors may have to be re-evaluated. However, this is not categorized as a route recomputation.

**QUESTION 311** Refer to the exhibit. The network associate is configuring OSPF on the Core router. All the connections to the branches should be participating in OSPF. The link to the ISP should NOT participate in OSPF and should only be advertised as the default route. What set of commands will properly configure the Core router?  
A. Core(config-router)# default-information originate  
Core(config-router)# network 10.0.0.0 0.255.255.255 area 0  
Core(config-router)# exit  
Core(config)# ip route 0.0.0.0 0.0.0.0 10.10.2.14  
B. Core(config-router)# default-information originate  
Core(config-router)# network 10.10.2.13 0.0.0.242 area 0  
Core(config-router)# exit  
Core(config)# ip route 0.0.0.0 0.0.0.0 10.10.2.14  
C. Core(config-router)# default-information originate  
Core(config-router)# network 10.10.2.16 0.0.0.15 area 0  
Core(config-router)# exit  
Core(config)# ip route 0.0.0.0 0.0.0.0 10.10.2.14  
D. Core(config-router)# default-information originate  
Core(config-router)# network 10.10.2.32 0.0.0.31 area 0  
Core(config-router)# exit  
Core(config)# ip route 0.0.0.0 0.0.0.0 10.10.2.14

**Answer: C**  
**Explanation:** There are two ways to inject a default route into a normal area.  
1. If the ASBR already has the default route in its routing table, you can advertise the existing 0.0.0.0/0 into the OSPF domain with the `default-information originate` router configuration command.  
2. If the ASBR doesn't have a default route, you can add the keyword `always` to the `default-information originate` command (`default-information originate always`). This command will advertise a default route into the OSPF domain, regardless of whether it has a route to 0.0.0.0. Another benefit of adding `always` keyword is that it can add stability to the internetwork. For example, if the ASBR is learning a default route from another routing domain such as RIP and this route is flapping, then without the `always` keyword, each time the route flaps, the ASBR will send a new Type 5 LSA into the OSPF domain causing some instability inside the OSPF domain. With the `always` keyword, the ASBR will advertise the default inside the OSPF domain always. In the example shown here, only choice C is correct as the wildcard mask correctly specifies the 10.10.2.16 0.0.0.15 networks, which include all IP addresses in the 10.10.2.16-10.10.2.31 range. In this question we were told that the ISP link should NOT be configured for OSPF, making choice A incorrect.

[http://www.cisco.com/en/US/tech/tk365/technologies\\_configuration\\_example09186a00801ec9f0.shtml](http://www.cisco.com/en/US/tech/tk365/technologies_configuration_example09186a00801ec9f0.shtml)  
**QUESTION 312** Refer to the exhibit. Which two statements are true about the loopback address that is configured on RouterB? (Choose two.)  
A. It ensures that data will be forwarded by RouterB.  
B. It provides stability for the OSPF process on RouterB.  
C. It specifies that the router ID for RouterB should be 10.0.0.1.  
D. It decreases the metric for routes that are advertised from RouterB.  
E. It indicates that RouterB should be elected the DR for the LAN.

**Answer: BC**  
**Explanation:** A loopback interface never comes down even if the link is broken so it provides stability for the OSPF process (for example we use that loopback interface as the router-id) - B is correct. The router-ID is chosen in the order below: The highest IP address assigned to a loopback (logical) interface. If a loopback interface is not defined, the highest IP address of all active router's physical interfaces will be chosen. The loopback interface will be chosen as the router ID of RouterB - C is correct.  
**QUESTION 313** What is the default maximum number of equal-cost paths that can be placed into the routing table of a Cisco OSPF router?  
A. 2  
B. 4  
C. 16  
D. unlimited  
**Answer: B**  
**Explanation:** 4 is the default number of routes that OSPF will include in routing table if more than 4 equal cost routes exist for the same subnet. However, OSPF can include up to 16 equal cost routes in the routing table and perform load balancing amongst them. In order to configure this feature, you need to use the OSPF subcommand `maximum-paths`, i.e. `maximum-paths 16`.  
**QUESTION 314** Which parameter would you tune to affect the selection of a static route as a backup, when a dynamic protocol is also being used?  
A. hop count  
B. administrative distance  
C. link bandwidth  
D. link delay  
E. link cost  
**Answer: B**  
**Explanation:** What Is Administrative Distance?

[http://www.cisco.com/en/US/tech/tk365/technologies\\_tech\\_note09186a0080094195.shtml](http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a0080094195.shtml) Administrative distance is the feature that routers use in order to select the best path. Administrative distance defines the reliability of a routing protocol. Each routing protocol is prioritized in order of most to least reliable (believable) with the help of an administrative distance value. Lowest Administrative distance will be chosen first. QUESTION 315 What are two drawbacks of implementing a link-state routing protocol? (Choose two.) A. the sequencing and acknowledgment of link-state packets B. the requirement for a hierarchical IP addressing scheme for optimal functionality C. the high volume of link-state advertisements in a converged network D. the high demand on router resources to run the link-state routing algorithm E. the large size of the topology table listing all advertised routes in the converged network Answer: B D Explanation: Link State routing protocols, such as OSPF and IS-IS, converge more quickly than their distance vector routing protocols such as RIPv1, RIPv2, EIGRP and so on, through the use of flooding and triggered updates. In link state protocols, changes are flooded immediately and computed in parallel. Triggered updates improve convergence time by requiring routers to send an update message immediately upon learning of a route change. These updates are triggered by some event, such as a new link becoming available or an existing link failing. The main drawbacks to link state routing protocols are the amount of CPU overhead involved in calculating route changes and memory resources that are required to store neighbor tables, route tables and a complete topology table. <http://www.ciscopress.com/articles/article.asp?p=24090&seqNum=4> QUESTION 316 Which two are advantages of static routing when compared to dynamic routing? (Choose two.) A. Configuration complexity decreases as network size increases. B. Security increases because only the network administrator may change the routing table. C. Route summarization is computed automatically by the router. D. Routing tables adapt automatically to topology changes. E. An efficient algorithm is used to build routing tables, using automatic updates. F. Routing updates are automatically sent to neighbors. G. Routing traffic load is reduced when used in stub network links. Answer: B G Explanation:

<http://www.ciscopress.com/articles/article.asp?p=24090&seqNum=6> <http://www.ciscopress.com/articles/article.asp?p=24090> QUESTION 317 Which command enables IPv6 forwarding on a Cisco router? A. ipv6 local B. ipv6 host C. ipv6 unicast-routing D. ipv6 neighbor Answer: C Explanation: <http://www.ciscopress.com/articles/article.asp?p=31948&seqNum=4> The first step of enabling IPv6 on a Cisco router is the activation of IPv6 traffic forwarding to forward unicast IPv6 packets between network interfaces. By default, IPv6 traffic forwarding is disabled on Cisco routers. The ipv6 unicast-routing command is used to enable the forwarding of IPv6 packets between interfaces on the router. The syntax for this command is as follows:

Router(config)#ipv6 unicast-routing The ipv6 unicast-routing command is enabled on a global basis. QUESTION 318 A router is running three routing processes: RIP, OSPF, and EIGRP, each configured with default characteristics. Each process learns a route to the same remote network. If there are no static routes to the destination and none of the routes were redistributed, which route will be placed in the IP routing table? A. the route learned through EIGRP B. the route learned through OSPF C. the route learned through RIP D. the route with the lowest metric E. all three routes with the router load balancing Answer: A Explanation:

[http://www.cisco.com/en/US/tech/tk365/technologies\\_tech\\_note09186a0080094195.shtml](http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a0080094195.shtml) Administrative distance is the feature that routers use in order to select the best path. Administrative distance defines the reliability of a routing protocol. Each routing protocol is prioritized in order of most to least reliable (believable) with the help of an administrative distance value. Lowest Administrative distance will be chosen first. QUESTION 319 Refer to the exhibit. Given the output for this command, if the router ID has not been manually set, what router ID will OSPF use for this router? A. 10.1.1.2 B. 10.154.154.1 C. 172.16.5.1 D. 192.168.5.3 Answer: C Explanation: CCNA Tutorial: The OSPF Router ID (RID)

<http://www.thebryantadvantage.com/CCNACertificationExamTutorialOSPFRouterIDRID.htm> When determining the Router ID (RID) of an OSPF-enabled router, OSPF will always use the numerically highest IP address on the router's loopback interfaces, regardless of whether that loopback is OSPF-enabled. What if there is no loopback? OSPF will then use the numerically highest IP address of the physical interfaces, regardless of whether that interface is OSPF-enabled. QUESTION 320 The internetwork infrastructure of company XYZ consists of a single OSPF area as shown in the graphic. There is concern that a lack of router resources is impeding internetwork performance. As part of examining the router resources, the OSPF DRs need to be known. All the router OSPF priorities are at the default and the router IDs are shown with each router. Which routers are likely to have been elected as DR? (Choose two.) A. Corp-1 B. Corp-2 C. Corp-3 D. Corp-4 E. Branch-1 F. Branch-2 Answer: D F Explanation: There are 2 segments on the topology above which are separated by Corp-3 router. Each segment will have a DR so we have 2 DRs. To select which router will become DR they will compare their router-IDs. The router with highest (best) router-ID will become DR. The router-ID is chosen in the order below: The highest IP address assigned to a loopback (logical) interface. If a loopback interface is not defined, the highest IP address of all active router's physical interfaces will be chosen. In this question, the IP addresses of loopback interfaces are not mentioned so we will consider IP addresses of all active router's physical interfaces. Router Corp-4 (10.1.40.40) & Branch-2 (10.2.20.20) have highest "active" IP addresses so they will become DRs. QUESTION

321 What does a router do if it has no EIGRP feasible successor route to a destination network and the successor route to that destination network is in active status? A. It routes all traffic that is addressed to the destination network to the interface indicated in the routing table. B. It sends a copy of its neighbor table to all adjacent routers. C. It sends a multicast query packet to all adjacent neighbors requesting available routing paths to the destination network. D. It broadcasts Hello packets to all routers in the network to re-establish neighbor adjacencies. Answer: C Explanation: Introduction to EIGRP Reference:

[http://www.cisco.com/en/US/tech/tk365/technologies\\_tech\\_note09186a0080093f07.shtml](http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a0080093f07.shtml) Feasible Successors A destination entry is moved from the topology table to the routing table when there is a feasible successor. All minimum cost paths to the destination form a set. From this set, the neighbors that have an advertised metric less than the current routing table metric are considered feasible successors. Feasible successors are viewed by a router as neighbors that are downstream with respect to the destination. These neighbors and the associated metrics are placed in the forwarding table. When a neighbor changes the metric it has been advertising or a topology change occurs in the network, the set of feasible successors may have to be re-evaluated. However, this is not categorized as a route recomputation. Route States A topology table entry for a destination can have one of two states. A route is considered in the Passive state when a router is not performing a route recomputation. The route is in Active state when a router is undergoing a route recomputation. If there are always feasible successors, a route never has to go into Active state and avoids a route recomputation. When there are no feasible successors, a route goes into Active state and a route recomputation occurs. A route recomputation commences with a router sending a query packet to all neighbors. Neighboring routers can either reply if they have feasible successors for the destination or optionally return a query indicating that they are performing a route recomputation. While in Active state, a router cannot change the next-hop neighbor it is using to forward packets. Once all replies are received for a given query, the destination can transition to Passive state and a new successor can be selected. When a link to a neighbor that is the only feasible successor goes down, all routes through that neighbor commence a route recomputation and enter the Active state.

QUESTION 322 Refer to the exhibit. The network is converged. After link-state advertisements are received from Router\_A, what information will Router\_E contain in its routing table for the subnets 208.149.23.64 and 208.149.23.96? A. O 208.149.23.64 [110/13] via 190.173.23.10, 00:00:07, FastEthernet 0/0 O 208.149.23.96 [110/13] via 190.173.23.10, 00:00:16, FastEthernet 0/0B. O 208.149.23.64 [110/1] via 190.172.23.10, 00:00:07, Serial 1/0 O 208.149.23.96 [110/3] via 190.173.23.10, 00:00:16, FastEthernet 0/0 C. O 208.149.23.64 [110/13] via 190.172.23.10, 00:00:07, Serial 1/0 O 208.149.23.96 [110/13] via 190.172.23.10, 00:00:16, Serial 1/0 D. O 208.149.23.96 [110/13] via 190.173.23.10, 00:00:16, FastEthernet 0/0 E. O 208.149.23.64 [110/3] via 190.172.23.10, 00:00:07, Serial 1/0 O 208.149.23.96 [110/3] via 190.172.23.10, 00:00:16, Serial 1/0 Answer: A Explanation: Router\_E learns two subnets subnets 208.149.23.64 and 208.149.23.96 via Router\_A through FastEthernet interface. The interface cost is calculated with the formula  $108 / \text{Bandwidth}$ . For FastEthernet it is  $108 / 100 \text{ Mbps} = 108 / 100,000,000 = 1$ . Therefore the cost is 12 (learned from Router\_A) + 1 = 13 for both subnets - B is not correct. The cost through T1 link is much higher than through T3 link (T1 cost =  $108 / 1.544 \text{ Mbps} = 64$ ; T3 cost =  $108 / 45 \text{ Mbps} = 2$ ) so surely OSPF will choose the path through T3 link -> Router\_E will choose the path from Router\_A through FastEthernet0/0, not Serial1/0 - C & D are not correct. In fact, we can quickly eliminate answers B, C and D because they contain at least one subnet learned from Serial1/0 - they are surely incorrect. QUESTION 323 Which command is used to display the collection of OSPF link states? A. show ip ospf link-state B. show ip ospf lsa database C. show ip ospf neighbors D. show ip ospf database Answer: D Explanation:

[http://www.cisco.com/en/US/docs/ios/iproute\\_ospf/command/iro\\_osp3.html#wp101217](http://www.cisco.com/en/US/docs/ios/iproute_ospf/command/iro_osp3.html#wp101217) Examples The following is sample output from the show ip ospf database command when no arguments or keywords are used: Router# show ip ospf database OSPF Router with id (192.168.239.66) (Process ID 300) QUESTION 324 What is the default administrative distance of OSPF? A. 90 B. 100 C. 110 D. 120 Answer: C Explanation: Default Distance Value Table This table lists the administrative distance default values of the protocols that Cisco supports:

QUESTION 325 The following configuration is applied to a Layer 2 Switch: interface fastethernet 0/4 switchport mode access switchport port-security switchport port-security mac-address 0000.1111.1111 switchport port-security maximum 2 switchport port-security What is the result of the above configuration being applied to the switch? A. A host with a mac address of 0000.1111.1111 and up to two other hosts can connect to FastEthernet 0/4 simultaneously B. A host with a mac address of 0000.1111.1111 and one other host can connect to Fast Ethernet 0/4 simultaneously C. Violating addresses are dropped and no record of the violation is kept D. The switch can send an SNMP message to the network management station E. The port is effectively shutdown Answer: B Explanation:

[http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/12.2/20ewa/configuration/guide/port\\_sec.html](http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/12.2/20ewa/configuration/guide/port_sec.html) Cisco 200-105 exam questions are available in PDF and VCE format. This makes it very convenient for you to follow the course and study the exam whenever and wherever you want. The Cisco 200-105 exam questions follow the exact paper pattern and question type of the actual 200-105 certification exam, it lets you recreate the exact exam scenario, so you are armed with the correct information for the

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