

# Juniper

## Exam Questions JN0-664

Service Provider - Professional (JNCIP-SP)



**NEW QUESTION 1**

Exhibit

```

user@R1> show ospf interface detail
Interface          State      Area          DR ID          BDR ID Nbrs
xe-0/0/1.0         BDR       0.0.0.0       192.168.37.12  11.244.245.215 1
Type LAN, address 192.161.27.11, Mask 255.255.255.248, MTU 4460, Cost 40
DR addr 192.161.37.12, BDR addr 192.168.37.11, Adj count 1, Priority 128
Hello 10, Dead 40, ReXmit 5, Not Stub
fe-0/2/1.0         PtToPt    0.0.0.0       0.0.0.0        0.0.0.0 0
Type P2P, Address 0.0.0.0, Mask 0.0.0.0, MTU 1500, Cost 2604
Adj count 0
Hello 10, Dead 40, ReXmit 5, Not Stub
Auth type: MD5, Active key ID 3, Start time 2013 Jul 19 10:00:00 PST
IPsec SA Name: sa

user@R2> show ospf interface detail
Interface          State      Area          DR ID          BDR ID Nbrs
xe-1/1/1.0         BDR       0.0.0.0       192.168.37.12  11.244.245.216 1
Type LAN, address 192.161.27.12, Mask 255.255.255.248, MTU 4460, Cost 40
DR addr 192.161.37.12, BDR addr 192.168.37.11, Adj count 1, Priority 128
Hello 3, Dead 9, ReXmit 5, Not Stub
fe-2/2/2.0         PtToPt    0.0.0.0       0.0.0.0        0.0.0.0 0
Type P2P, Address 0.0.0.0, Mask 0.0.0.0, MTU 1500, Cost 2604
Adj count 0
Hello 10, Dead 40, ReXmit 5, Not Stub
Auth type: MD5, Active key ID 3, Start time 2013 Jul 19 10:00:00 PST
IPsec SA Name: sa
    
```

Which two statements are true about the OSPF adjacency displayed in the exhibit? (Choose two.)

- A. There is a mismatch in the hello interval parameter between routers R1 and R2
- B. There is a mismatch in the dead interval parameter between routers R1 and R2.
- C. There is a mismatch in the OSPF hold timer parameter between routers R1 and R2.
- D. There is a mismatch in the poll interval parameter between routers R1 and R2.

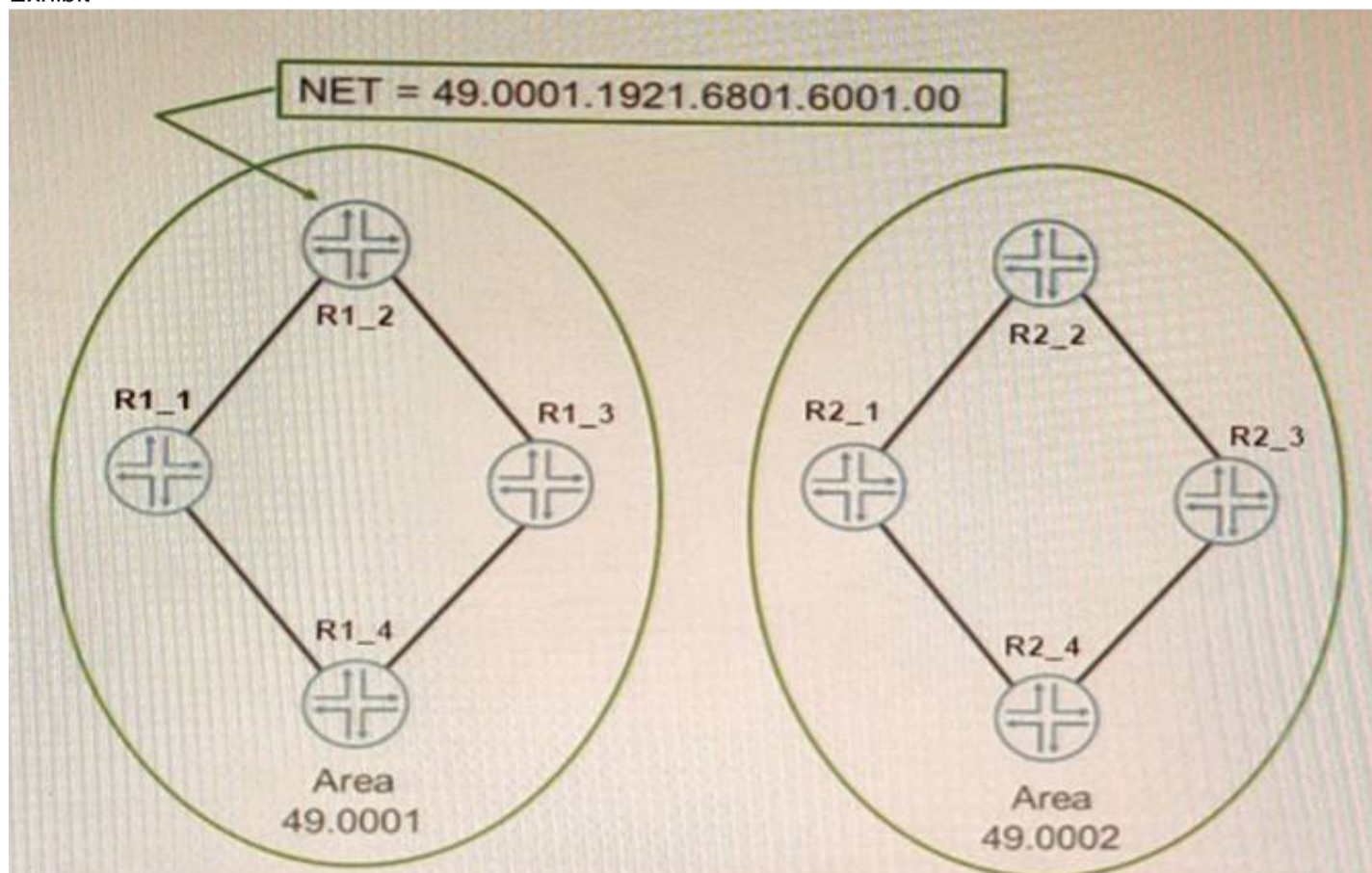
**Answer:** AB

**Explanation:**

The hello interval is the time interval between two consecutive hello packets sent by an OSPF router on an interface. The dead interval is the time interval after which a neighbor is declared down if no hello packets are received from it. These parameters must match between two OSPF routers for them to form an adjacency. In the exhibit, router R1 has a hello interval of 10 seconds and a dead interval of 40 seconds, while router R2 has a hello interval of 30 seconds and a dead interval of 120 seconds. This causes a mismatch and prevents them from becoming neighbors.

**NEW QUESTION 2**

Exhibit



The network shown in the exhibit is based on IS-IS Which statement is correct in this scenario?

- A. The NSEL byte for Area 0001 is 00.
- B. The area address is two bytes.
- C. The routers are using unnumbered interfaces
- D. The system ID of R1\_2 is 192.168.16.1

**Answer:** A

**Explanation:**

IS-IS is an interior gateway protocol that uses link-state routing to exchange routing information among routers within a single autonomous system. IS-IS uses two types of addresses to identify routers and areas: system ID and area address. The system ID is a unique identifier for each router in an IS-IS domain. The system ID is 6 octets long and can be derived from the MAC address or manually configured. The area address is a variable-length identifier for each area in an IS-IS domain. The area address can be 1 to 13 octets long and is composed of high-order octets of the address. An IS-IS instance may be assigned multiple area addresses, which are considered synonymous. Multiple synonymous area addresses are useful when merging or splitting areas in the domain. In this question, we have a network based on IS-IS with four routers (R1\_1, R1\_2, R2\_1, and R2\_2) belonging to area 0001. The area address for area 0001 is 49.0001. The NSEL byte for area 0001 is the last octet of the address, which is 01. The NSEL byte stands for Network Service Access Point Selector (NSAP Selector) and indicates the type of service requested from the network layer. Therefore, the correct statement in this scenario is that the NSEL byte for area 0001 is 01.

References: 1: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\\_isis/configuration/x-16/irs-xe-16-book/irs-ovrvw-cf.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_isis/configuration/x-16/irs-xe-16-book/irs-ovrvw-cf.html) 2: <https://www.juniper.net/documentation/us/en/software/junos/isis/topics/concept/isis-routing-overview.html>

**NEW QUESTION 3**

In IS-IS, which two statements are correct about the designated intermediate system (DIS) on a multi-access network segment? (Choose two)

- A. A router with a priority of 10 wins the DIS election over a router with a priority of 1.
- B. A router with a priority of 1 wins the DIS election over a router with a priority of 10.
- C. On the multi-access network, each router forms an adjacency to every other router on the segment
- D. On the multi-access network, each router only forms an adjacency to the DIS.

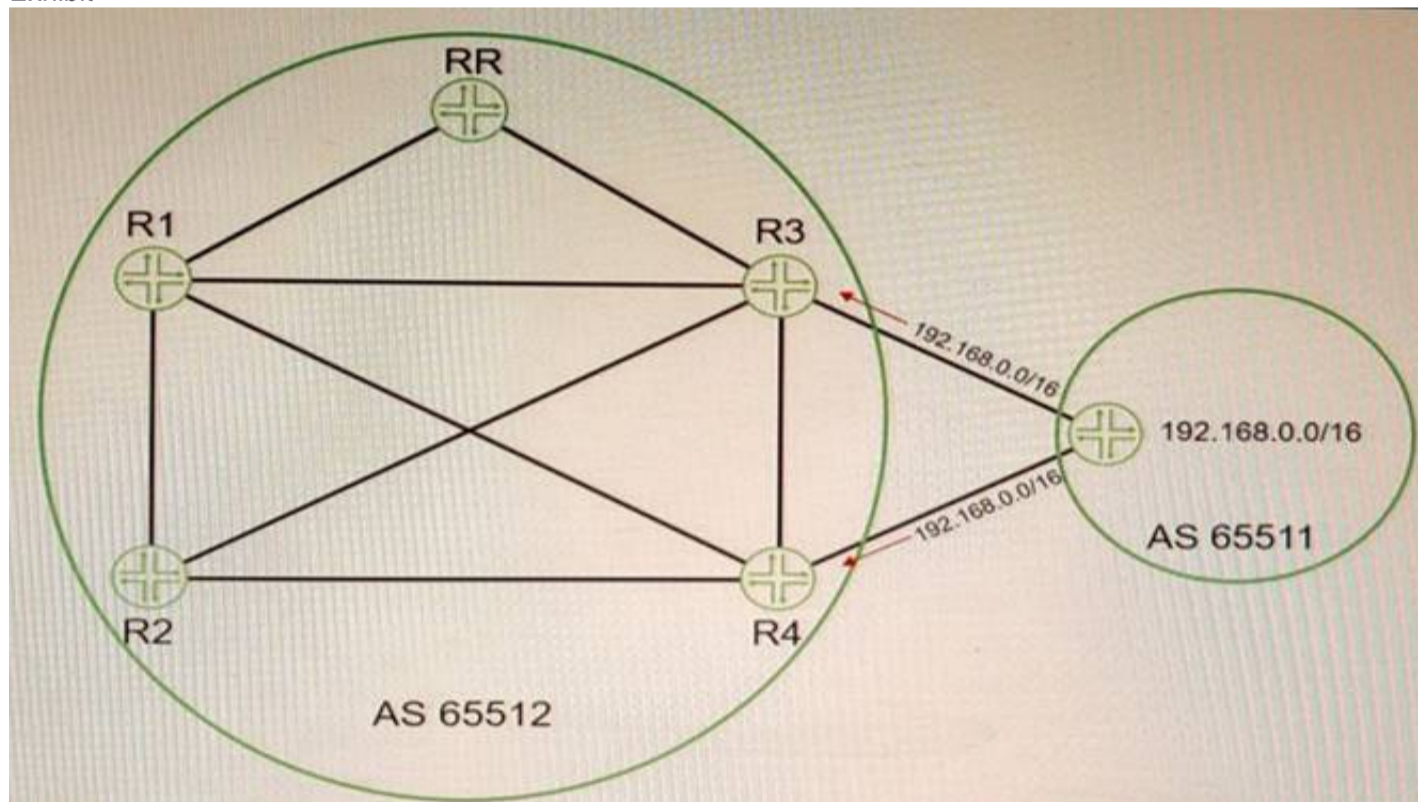
**Answer: AD**

**Explanation:**

In IS-IS, a designated intermediate system (DIS) is a router that is elected on a multi-access network segment (such as Ethernet) to perform some functions on behalf of other routers on the same segment. A DIS is responsible for sending network link-state advertisements (LSPs), which describe all the routers attached to the network. These LSPs are flooded throughout a single area. A DIS also generates pseudonode LSPs, which represent the multi-access network as a single node in the link-state database. A DIS election is based on the priority value configured on each router's interface connected to the multi-access network. The priority value ranges from 0 to 127, with higher values indicating higher priority. The router with the highest priority becomes the DIS for the area (Level 1, Level 2, or both). If routers have the same priority, then the router with the highest MAC address is elected as the DIS. By default, routers have a priority value of 64. On a multi-access network, each router only forms an adjacency to the DIS, not to every other router on the segment. This reduces the amount of hello packets and LSP

**NEW QUESTION 4**

Exhibit



Referring to the exhibit, you are receiving the 192.168 0 0/16 route on both R3 and R4 from your EBGP neighbor You must ensure that R1 and R2 receive both BGP routes from the route reflector

In this scenario, which BGP feature should you configure to accomplish this behavior?

- A. add-path
- B. multihop
- C. multipath
- D. route-target

**Answer: A**

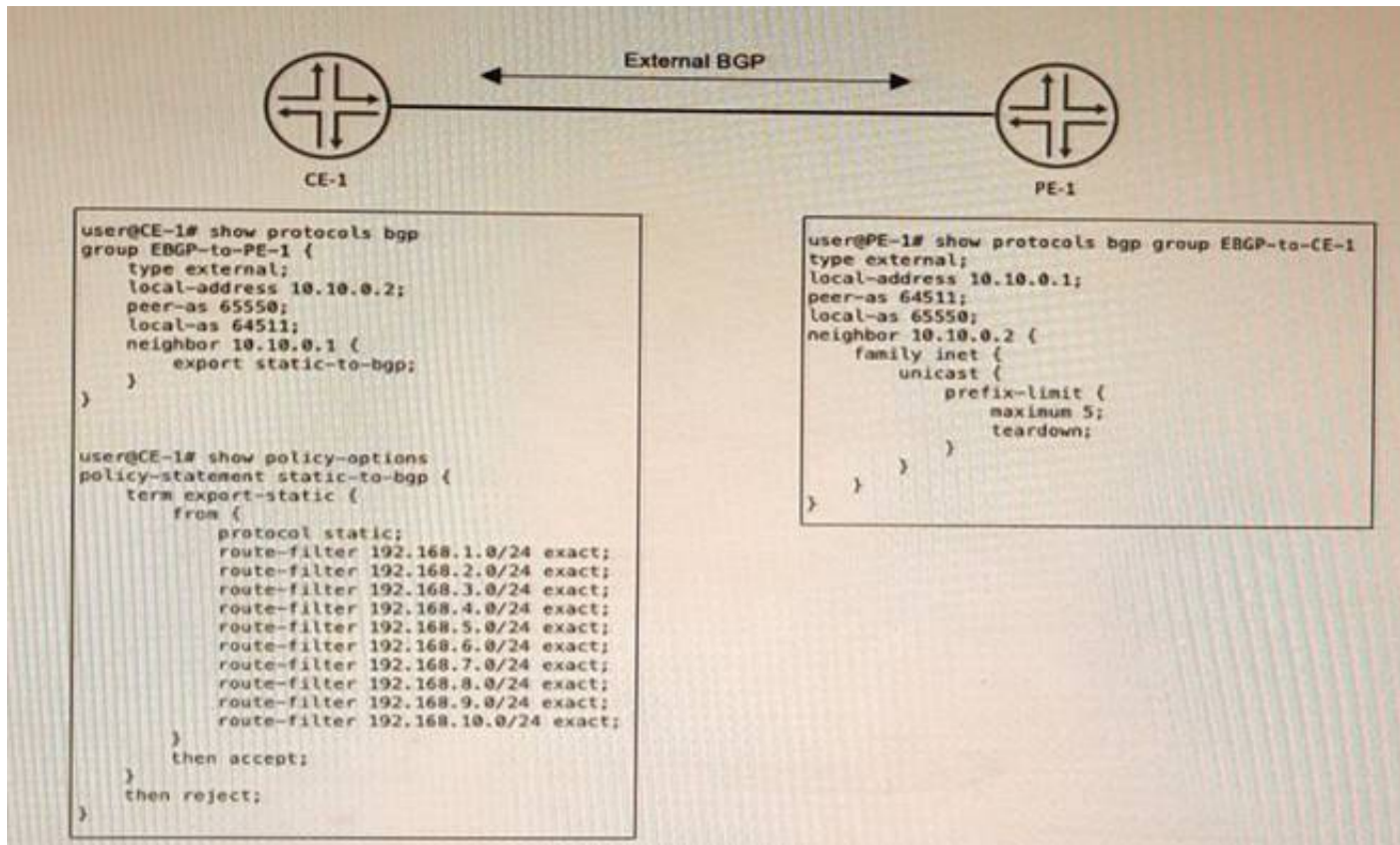
**Explanation:**

BGP add-path is a feature that allows the advertisement of multiple paths through the same peering session for the same prefix without the new paths implicitly replacing any previous paths. This behavior promotes path diversity and reduces multi-exit discriminator (MED) oscillations. BGP add-path is implemented by adding a path identifier to each path in the NLRI. The path identifier can be considered as something similar to a route distinguisher in VPNs, except that a path ID can apply to any address family. Path IDs are unique to a peering session and are generated for each network. In this question, we have a route reflector (RR) that receives two routes for the same prefix (192.168.0.0/16) from an EBGP neighbor. By default, the RR will only advertise its best path to its clients (R1 and R2). However, we want R1 and R2 to receive both routes from the RR. To achieve this, we need to configure BGP add-path on the RR and enable it to send multiple paths for the same prefix to its clients.

Reference: 3: [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\\_bgp/configuration/x-16/irg-xe-16-book/bgp-additional-paths.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_bgp/configuration/x-16/irg-xe-16-book/bgp-additional-paths.html)

**NEW QUESTION 5**

Exhibit



CE-1 must advertise ten subnets to PE-1 using BGP. Once CE-1 starts advertising the subnets to PE-1, the BGP peering state changes to Active. Referring to the CLI output shown in the exhibit, which statement is correct?

- A. CE-1 is advertising its entire routing table.
- B. CE-1 is configured with an incorrect peer AS
- C. The prefix limit has been reached on PE-1
- D. CE-1 is unreachable

Answer: B

**Explanation:**

The problem in this scenario is that CE-1 is configured with an incorrect peer AS number for its BGP session with PE-1. The CLI output shows that CE-1 is using AS 65531 as its local AS number and AS 65530 as its peer AS number. However, PE-1 is using AS 65530 as its local AS number and AS 65531 as its peer AS number. This causes a mismatch in the BGP OPEN messages and prevents the BGP session from being established. To solve this problem, CE-1 should configure its peer AS number as 65530 under [edit protocols bgp group external] hierarchy level.

**NEW QUESTION 6**

Which statement is correct about IS-IS when it performs the Dijkstra algorithm?

- A. The local router moves its own local tuples into the candidate database
- B. When a new neighbor ID in the tree database matches a router ID in the LSDB, the neighbor ID is moved to the candidate database
- C. Tuples with the lowest cost are moved from the tree database to the LSDB.
- D. The algorithm will stop processing once the tree database is empty.

Answer: A

**Explanation:**

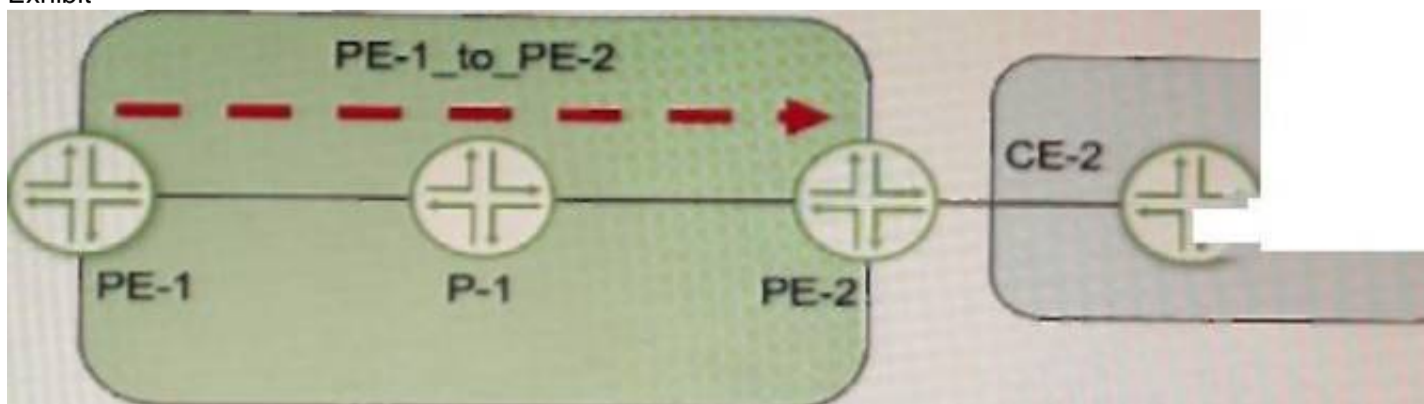
IS-IS is a link-state routing protocol that uses the Dijkstra algorithm to compute the shortest paths between nodes in a network. The Dijkstra algorithm maintains three data structures: a tree database, a candidate database, and a link-state database (LSDB). The tree database contains the nodes that have been visited and their shortest distances from the source node. The candidate database contains the nodes that have not been visited yet and their tentative distances from the source node. The LSDB contains the topology information of the network, such as the links and their costs.

The Dijkstra algorithm works as follows:

- ? The local router moves its own local tuples into the tree database. A tuple consists of a node ID, a distance, and a parent node ID. The local router's tuple has a distance of zero and no parent node.
- ? The local router moves its neighbors' tuples into the candidate database. The neighbors' tuples have distances equal to the costs of the links to them and parent node IDs equal to the local router's node ID.
- ? The local router selects the tuple with the lowest distance from the candidate database and moves it to the tree database. This tuple becomes the current node.
- ? The local router updates the distances of the current node's neighbors in the candidate database by adding the current node's distance to the link costs. If a shorter distance is found, the parent node ID is also updated.
- ? The algorithm repeats steps 3 and 4 until either the destination node is reached or the candidate database is empty.

**NEW QUESTION 7**

Exhibit



Referring to the exhibit, a working L3VPN exists that connects VPN-A sites. CoS is configured correctly to match on the MPLS EXP bits of the LSP, but when traffic is sent from Site-1 to Site-2, PE-2 is not classifying the traffic correctly.

What should you do to solve the problem?

- A. Configure the explicit-null statement on PE-1.
- B. Configure the explicit-null statement on PE-2
- C. Configure VPN prefix mapping for the PE-1\_to\_PE-2 LSP
- D. Set a static CoS value for the PE-1\_to\_PE-2 LSP

**Answer:** A

**Explanation:**

The explicit-null statement enables the PE router to send an MPLS label with a value of 0 (explicit null) instead of an IP header for packets destined to the VPN customer sites. This allows the penultimate hop router (the router before the egress PE router) to preserve the EXP bits of the MPLS label and pass them to the egress PE router. The egress PE router can then use these EXP bits to classify the traffic according to the CoS policy. In this example, PE-1 should configure the explicit-null statement under [edit protocols mpls label-switched-path PE-1\_to\_PE-2] hierarchy level.

**NEW QUESTION 8**

.....

## **Thank You for Trying Our Product**

### **We offer two products:**

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questions and Answers in PDF Format

### **JN0-664 Practice Exam Features:**

- \* JN0-664 Questions and Answers Updated Frequently
- \* JN0-664 Practice Questions Verified by Expert Senior Certified Staff
- \* JN0-664 Most Realistic Questions that Guarantee you a Pass on Your First Try
- \* JN0-664 Practice Test Questions in Multiple Choice Formats and Updates for 1 Year

**100% Actual & Verified — Instant Download, Please Click**  
**[Order The JN0-664 Practice Test Here](#)**