Exam Code: JN0-105

Exam Name: Junos, Associate

Number: JN0-105 Passing Score: 800 Time Limit: 120 File Version: 2.2

#### Exam A

#### **QUESTION 1**

Which process in the Junos OS is responsible for device management tasks including the CLI and commit operations?

- A. mgd
- B. chassisd
- C. rpd
- D. dcd

## Correct Answer: A

## Section:

## Explanation:

In Junos OS, the management daemon (mgd) is responsible for handling all the device management tasks, including processing CLI commands and handling commit operations. The mgd daemon interacts with the Junos OS configuration database and provides the necessary logic to ensure that configuration changes are syntactically correct and do not conflict with each other. When a user commits a configuration, mgd validates the changes, applies them to the running configuration, and ensures that the necessary daemons are notified of the changes to apply them accordingly.

## **QUESTION 2**

Which two components are included in a transport header? (Choose two.)

- A. destination port number
- B. source MAC address
- C. source port number
- D. destination MAC address

#### Correct Answer: A, C

#### Section:

#### **Explanation:**

The transport layer in the OSI model is responsible for end-to-end communication and error recovery. In a transport header, such as TCP or UDP, the key components include the source port number and the destination port number. These port numbers are used to identify sending and receiving applications. The source port number indicates the port of the sending application, and the destination port number refers to the port of the receiving application. MAC addresses, on the other hand, are part of the data link layer (Layer 2) and would be included in an Ethernet header, not a transport header.

#### **QUESTION 3**

Which Junos feature limits the amount of exception traffic that is sent from the PFE to the RE?

- A. scheduler
- B. policer
- C. CoS markings
- D. routing policy

# Correct Answer: B

# Section:

## Explanation:

In Junos OS, a policer is a feature used to limit the rate of traffic flow in the network, including exception traffic sent from the Packet Forwarding Engine (PFE) to the Routing Engine (RE). Exception traffic consists of packets that cannot be processed by the PFE alone and require intervention by the RE, such as control packets or packets destined for the device itself. A policer can be configured to enforce bandwidth limits and drop or mark

packets that exceed specified rate limits, thus protecting the RE from being overwhelmed by excessive exception traffic.

## **QUESTION 4**

What information would you find using the CLI help command?

- A. hyperlinks for remediation actions
- B. a URL for accessing the technical documentation
- C. an explanation for specific system log error messages
- D. message of the day

**Correct Answer: C** 

#### Section:

## **Explanation:**

The CLI help command in Junos OS provides assistance and explanations for commands, command options, and in some cases, specific system log error messages. By using the help command followed by specific keywords or messages, users can get detailed information and context for the commands they are using or errors they are encountering. This feature is particularly useful for understanding the purpose of commands, their syntax, and troubleshooting error messages that may appear in system logs.

#### **QUESTION 5**

Exhibit Exhibit [edit] root# set system host-name TEST\_DEVICE [edit] root# commit [edit] 'system' Missing mandatory statement: 'root-authentication' error: commit failed: (missing mandatory statements) [edit] root# You are configuring a new device. Which action solves the error shown in the exhibit?

A. configuring a non-root username and password

- B. configuring a password for the root account
- C. loading the factory-default configuration
- D. reinstalling Junos

## **Correct Answer: B**

#### Section:

#### **Explanation:**

The error message in the exhibit indicates that the root-authentication statement is missing, which is mandatory for committing the configuration. In Junos OS, it is required to set a password for the root account to commit any configuration changes. This is a security measure to ensure that unauthorized users cannot access the device's configuration mode. To solve the error shown in the exhibit, configuring a password for the root account is necessary. This can be done by using the set system root-authentication plain-text-password command, after which the user will be prompted to enter a new password for the root account.

## **QUESTION 6**

Exhibit

user@router> show route 192.168.100.2 inet.O: 15 destinations, 17 routes (15 active, 0 holddown, 0 hidden) Limit/Threshold: 1048576/1048576 destinations + = Active Route, - = Last Active, \* = Both 192.168.100.2/32 \*[OSPF/IO] 00:14:29, metric 1 > to 172.16.1.6 via ge-0/0/1.0 [BGP/170] 00:06:49, localpref 100 AS path: 65102 I, validation-state: unverified > to 172.16.1.6 via ge-0/0/1.0 Referring to the exhibit, which statement is correct?

- A. The BGP path is the only active route.
- B. The BGP route is preferred over the OSPF route.
- C. The OSPF path is the only active route.
- D. Traffic is load-balanced across two routes.

#### **Correct Answer: C**

#### Section:

## Explanation:

Referring to the exhibit, the presence of the '+' symbol next to the OSPF route for 192.168.100.2/32 indicates that this is the active route being used to forward traffic. The BGP route, although present, does not have the '+' symbol, indicating it is not the active route. In Junos OS, the routing table displays the active route with a '+' symbol, and the fact that the OSPF route has this symbol means it is the preferred path based on the routing protocol's decision process, which takes into account factors such as route preference (administrative distance) and metrics.

## **QUESTION 7**

Which two addresses are included in an Ethernet frame header? (Choose two.)

- A. source IP address
- B. source MAC address
- C. destination IP address
- D. destination MAC address

## Correct Answer: B, D

## Section:

#### Explanation:

An Ethernet frame header includes the source MAC address (B) and the destination MAC address (D). These addresses are used to deliver the frame from one Ethernet device to another directly connected Ethernet device on the same network segment. Ethernet frames do not include IP addresses, as those are part of the IP packet encapsulated within the Ethernet frame.

#### **QUESTION 8**

You issue the monitor traffic interface ge-0/0/0 command. What will this command accomplish?

- A. It displays real-time statistics for interface ge-0/0/0.
- B. It displays an operational summary of ge-0/0/0.
- C. It displays the MTU and MAC address for ge-0/0/0.
- D. It displays a packet capture on interface ge-0/0/0.

#### **Correct Answer: D**

#### Section:

#### Explanation:

The command 'monitor traffic interface ge-0/0/0' (D) initiates a packet capture on the specified interface, allowing you to view the actual packets being transmitted and received. This is useful for troubleshooting and analyzing the traffic passing through the interface in real time.

#### **QUESTION 9**

## Exhibit

{hold:node0}[edit] root# set system root-authentication ? Possible completions: + apply-groups Groups from which to inherit configuration data + apply-groups-except Don't inherit configuration data from these groups encrypted-password Encrypted password string load-key-file File (URL) containing one or more ssh keys plain-text-password Prompt for plain text password (autoencrypted) > ssh-dsa Secure shell (ssh) DSA public key string > ssh-rsa Secure shell (ssh) RSA public key string {hold:node0}[edit] root# set system root-authentication plain-text-password New password: Retype new password: {hold:node0}[edit] root# commit and-quit [edit interfaces] 'ge-0/0/0' HA management port cannot be configured error: configuration check-out failed {hold:node0}[edit] root#

You are unable to remotely access your Juniper device using the CLI. Referring to the exhibit, which command would you add to the existing configuration to enable remote CLI access?

- A. load factory-default
- B. set system root-authentication plain-text-password
- C. set system services ssh
- D. set system login idle-timeout 20

#### **Correct Answer: C**

#### Section:

## **Explanation:**

In Junos OS, remote access to the device's CLI is commonly facilitated through Secure Shell (SSH), a protocol providing secure command-line access over an insecure network. The given exhibit indicates an attempt to set a root authentication password but does not show configuration for enabling remote access services. To enable SSH, which is not shown in the configuration snippet, you need to configure the device to accept SSH connections. This is done by enabling the SSH service within the system services hierarchy of the configuration. The correct command to add to the existing configuration for enabling remote CLI access via SSH is set system services ssh. This command activates the SSH service, allowing secure remote logins to the device.

## **QUESTION 10**

Which Junos OS component is responsible for maintaining the forwarding table?

- A. Routing Engine
- B. chassis control daemon
- C. Packet Forwarding Engine
- D. management daemon

#### **Correct Answer: C**

#### Section:

## **Explanation:**

The Packet Forwarding Engine (PFE) in Junos OS is responsible for maintaining the forwarding table. The PFE processes incoming packets, performs route lookups in the forwarding table, and forwards packets based on this information, offloading these tasks from the Routing Engine to ensure efficient packet forwarding.

## **QUESTION 11**

Which two common routing policy actions affect the flow of policy evaluation? (Choose two.)

- A. next policy
- B. community
- C. next term
- D. next hop

#### Correct Answer: A, C

#### Section:

## Explanation:

In Junos OS routing policy evaluation, 'next policy' (A) and 'next term' (C) are common actions that affect the flow of policy evaluation. 'Next policy' directs the evaluation to the next policy in the sequence, whereas 'next term' moves the evaluation to the next term within the current policy, allowing for granular control over routing decisions.

## **QUESTION 12**

Which criteria does the Junos OS use to select an active route when two entries exist in the routing table?

A. the route with the lowest preference number

- B. the most recently learned dynamic route
- C. the route with the highest preference number
- D. the route with the highest metric

## **Correct Answer: A**

## Section:

## **Explanation:**

In Junos OS, when two entries for the same destination exist in the routing table, the route with the lowest preference number is selected as the active route. This preference number, also known as the route preference or administrative distance, is used to prioritize routes received from different routing protocols.

## **QUESTION 13**

How many rescue configuration files are supported on a Junos device?

A. 50

- B. 3
- C. 1
- D. 49

## Correct Answer: C

## Section:

## **Explanation:**

Junos OS supports only 1 rescue configuration file on a device. This rescue configuration is a safeguard feature that allows network administrators to revert to a known good configuration in case of a configuration error or issue, ensuring network stability.

## **QUESTION 14**

You need to recover the root password on a Junos router without losing the current configuration settings. Which three statements describe what you should perform in this scenario? (Choose three.)

- A. Enter and commit the new root password.
- B. Load the factory-default configuration.
- C. Upgrade the Junos OS to the latest version.
- D. Hit the space bar and enter recovery when prompted.
- E. Use a console connection to reboot the device.

## Correct Answer: A, D, E

#### Section:

## **Explanation:**

To recover the root password on a Junos router without losing the configuration, you should (A) enter and commit the new root password once you have gained access to the system, (D) hit the space bar to interrupt the boot process and enter recovery mode when prompted during the boot process, and (E) use a console connection to reboot the device and access the bootloader prompt. These steps allow you to reset the root password while preserving the existing configuration.

## **QUESTION 15**

You configured your system authentication order using the set authentication-order tacplus radius password command. Which statement is correct in this scenario?

- A. A rejection by TACACS+ will prevent a login and bypass the other two authentication methods.
- B. The password authentication will only be used if the TACACS+ and RADIUS servers fail to respond.

C. All authentication methods are used with the most restrictive permission set used.

D. The password authentication method is evaluated if the TACACS+ and RADIUS servers respond with a reject message.

## **Correct Answer: B**

## Section:

## **Explanation:**

In the scenario where the system authentication order is set to 'tacplus radius password,' the correct statement is (B). If the TACACS+ and RADIUS servers are unreachable or fail to respond, the system will fall back to using password authentication. This ensures that users can still authenticate using locally stored passwords if external authentication servers are unavailable.

## **QUESTION 16**

Which three benefits occur when operating an interior gateway protocol (IGP) in an autonomous system (AS)? (Choose three.)

- A. IGPs automatically distribute static routing information.
- B. IGPs determine the optimal paths for data transmission.
- C. IGPs learn prefixes in the global Internet's routing table.
- D. IGPs react very fast to network change.
- E. IGPs learn everything about the subnets and best paths within your network.

## Correct Answer: B, D, E

## Section:

## **Explanation:**

Operating an Interior Gateway Protocol (IGP) within an Autonomous System (AS) provides several benefits, including determining the optimal paths for data transmission (B), reacting quickly to network changes (D), and learning all about the subnets and best paths within the network (E). IGPs are designed to manage routing within a single AS efficiently, adapting to changes and ensuring data is routed through the best available paths.

## **QUESTION 17**

Exhibit

[edit system archival] user@router# show configuration {
transfer-on-commit; archive-sites {
'scp://user@172.15.100.2 : /archive' password ## SECRET-DATA
'ftp://user@10.210.9.178:/archive' password '\$9...'; ## SECRET-DATA

Referring to the exhibit, where are the configuration backup files stored?

- A. Files are stored to the SCP site and the FTP site in a round-robin manner.
- B. Files are stored to the SCP site and the FTP site simultaneously.
- C. Files are stored to any site as selected by Junos internally.
- D. Files are stored to the SCP site but if the transfer fails, then to the FTP site.

#### **Correct Answer: B**

#### Section:

## Explanation:

In Junos OS, the archival configuration under [edit system] allows for the automatic backup of configuration files to designated locations upon commit. When multiple archive-sites are specified, as shown in the exhibit with both SCP and FTP sites listed, the device does not choose between them or use them in a round-robin manner. Instead, it attempts to transfer the configuration backup files to all specified sites simultaneously upon each commit. This ensures redundancy and increases the likelihood that a backup will be successfully stored even if one of the transfer methods or destinations fails.

## **QUESTION 18**

You issue the telnet 10.10.10.1 source 192.168.100.1 command. Which two statements are correct in this scenario? (Choose two.)

- A. The telnet session will have a source address of 10.10.10.1.
- B. The telnet session will have a destination address of 192.168.100.1.
- C. The telnet session will have a destination address of 10.10.10.1.
- D. The telnet session will have a source address of 192.168.100.1.

#### Correct Answer: C, D

#### Section:

#### **Explanation:**

In the given telnet command, 'telnet 10.10.10.1 source 192.168.100.1,' the destination address of the telnet session is 10.10.10.1, and the source address of the session is specified as 192.168.100.1, making C and D the correct answers. This command instructs the telnet client to use the specified source IP address when establishing the connection to the destination.

## **QUESTION 19**

You are trying to diagnose packet loss at interface ge-0/0/3. In this scenario, which command would help you view error statistics in real time?

- A. show interface terse
- B. show interface ge-0/0/3
- C. monitor interface traffic
- D. monitor interface ge-0/0/3

#### **Correct Answer: D**

## Section:

#### **Explanation:**

The monitor interface ge-0/0/3 command is used in Junos OS to view real-time statistics for a specific interface. This command helps in diagnosing issues like packet loss by displaying real-time updates of traffic and error statistics for the specified interface.

#### **QUESTION 20**

What are two benefits when implementing class of service? (Choose two.)

- A. Traffic congestion will be eliminated.
- B. The network will be faster.
- C. Traffic congestion can be managed.
- D. Latency-sensitive traffic can be prioritized.

#### Correct Answer: C

#### Section:

#### **Explanation:**

Class of Service (CoS) in Junos OS provides tools for managing traffic congestion and ensuring that latency-sensitive traffic is given priority over less time-critical data. By implementing CoS, network administrators can classify traffic into different priority levels, apply scheduling policies to ensure that high-priority traffic is transmitted first, and use congestion management techniques such as queue buffers and drop profiles. This helps in maintaining the quality of service for critical applications, especially during periods of high network congestion. However, CoS does not eliminate congestion entirely nor does it inherently make the network faster; it provides a mechanism for better managing and controlling traffic flows according to their importance and time sensitivity.

#### **QUESTION 21**

Which two external authentication methods does Junos support for administrative access? (Choose two.)

## A. TACACS+

## B. NIS

## C. RADIUS

D. ACE

## **Correct Answer: A**

# Section:

## Explanation:

Junos OS supports several external authentication methods for administrative access, with TACACS+ (Terminal Access Controller Access-Control System Plus) and RADIUS (Remote Authentication Dial-In User Service) being among the most commonly used. Both TACACS+ and RADIUS are protocols that allow network devices to communicate with a central authentication server, enabling centralized control over user authentication and authorization. This centralization simplifies the management of user credentials and access policies, especially in larger networks with multiple devices.

## **QUESTION 22**

Which two fields are you required to enter when you create a new user account? (Choose two.)

- A. username
- B. full name
- C. user ID
- D. login class

## Correct Answer: A, D

## Section:

## Explanation:

In Junos OS, when creating a new user account, the minimum required fields are the username and the login class. The username is the identifier for the account, while the login class specifies the level of access or permissions the user has on the device. Login classes allow for the differentiation between various roles, such as read-only access or full administrative rights. Other information, such as full name or user ID, is optional and not strictly necessary for the creation of a functional user account.

## **QUESTION 23**

What are two advantages of using the Junos OS? (Choose two.)

- A. It enables you to roll back to a previous configuration.
- B. It pushes your configuration changes 'live' immediately.
- C. It is modular.
- D. It supports up to a maximum of two previous configurations.

## **Correct Answer: A, C**

#### Section:

## **Explanation:**

One of the key advantages of Junos OS is its ability to roll back to previous configurations. This feature allows administrators to revert to an earlier configuration state, which is invaluable for quickly recovering from configuration errors or undesired changes. Junos OS maintains an archive of previous configurations, enabling easy rollback to any saved state. Another significant advantage of Junos OS is its modular design. The operating system is structured so that different processes and services run in separate protected memory spaces, enhancing the stability and reliability of the system. If one process fails, it does not affect the others, thereby minimizing the risk of system-wide failures.

## **QUESTION 24**

Exhibit term limit-icmp { from { source-address { 172.25.11.0/24; }

```
protocol icmp;
}
then {
count count-icmp; discard;
}
```

Referring to the exhibit, which two actions will occur when a packet matches the firewall filter? (Choose two.)

- A. An ICMP destination unreachable message will be returned.
- B. The packet will be forwarded.
- C. The packet will be discarded.
- D. A counter will be incremented.

## Correct Answer: C

Section:

## **Explanation:**

Referring to the firewall filter configuration in the exhibit, when a packet matches the specified term limit-icmp, two actions are defined in the then statement: count count-icmp and discard. The count count-icmp action means that each time a packet matches this term, a counter named count-icmp will be incremented, providing a tally of how many packets have matched the term. The discard action means that the packet will be dropped and not forwarded through the device. This effectively prevents the packet from reaching its intended destination. There is no action specified that would cause an ICMP destination unreachable message to be returned, nor is there any action that would allow the packet to be forwarded.

## **QUESTION 25**

What is the protocol data unit (PDU) of the Data Link Layer?

- A. segment
- B. byte
- C. frame
- D. bit

## Correct Answer: C

#### Section:

## Explanation:

In the OSI model, the Data Link Layer is responsible for node-to-node delivery of data. It frames the packets received from the Network Layer and prepares them for physical transmission. The Protocol Data Unit (PDU) for the Data Link Layer is called a 'frame.' Frames encapsulate the network layer packets, adding a header and a trailer that include the hardware addresses of the source and destination, among other things, facilitating the data link layer services like frame synchronization, flow control, and error checking.

## **QUESTION 26**

You want to find out the chassis serial number of a Junos device. Which command would display this information?

- A. show chassis environment
- B. show chassis hardware
- C. show chassis routing-engine
- D. show chassis location

Correct Answer: B Section: Explanation: The show chassis hardware command in Junos OS displays detailed information about the hardware installed in the device, including the chassis itself. This command provides a list of all hardware components, their serial numbers, part numbers, and version information. When looking for the chassis serial number specifically, this command is the most direct and comprehensive way to retrieve that information, as it includes the serial number of the chassis among the details provided.

## **QUESTION 27**

What will the request system configuration rescue save command do?

- A. It saves the most recently committed configuration as the rescue configuration.
- B. It saves the candidate configuration as the rescue configuration.
- C. It saves a configuration version prior to the configuration most recently committed as the rescue configuration.
- D. It activates the rescue configuration.

#### **Correct Answer: A**

#### Section:

## **Explanation:**

The 'request system configuration rescue save' command in Junos OS saves the most recently committed configuration as the rescue configuration, making A the correct answer. This feature allows administrators to set a known good configuration that can be quickly reverted to in case of configuration errors or issues.

## **QUESTION 28**

An administrator configures a router's interface with an IPv4 address and subnet mask. The administrator also confirms that this interface is in an up state. In this scenario, which two route types are created on the local router? (Choose two.)

- A. a static route
- B. a local route
- C. a dynamic route
- D. a direct route

## Correct Answer: B, D

## Section:

#### Explanation:

When an interface on a router is configured with an IPv4 address and is in an up state, two types of routes are automatically created in the routing table: a local route and a direct route, making B and D the correct answers. The local route represents the interface's IP address itself, indicating that the router can directly receive packets addressed to this IP. The direct route represents the subnet or network segment to which the interface is connected, indicating that the router can directions within this subnet.

## **QUESTION 29**

Which two functions are performed by the PFE? (Choose two.)

- A. It implements firewall filters.
- B. It selects active routes.
- C. It forwards transit traffic.
- D. It maintains the routing table.

#### Correct Answer: A, C

#### Section:

#### **Explanation:**

The Packet Forwarding Engine (PFE) in Junos OS performs several key functions, including implementing firewall filters (A) and forwarding transit traffic (C). The PFE applies firewall filter rules to incoming and outgoing traffic and is responsible for the high-speed forwarding of packets based on the information in the forwarding table.

## **QUESTION 30**

What are two physical interface properties? (Choose two.)

- A. MAC address
- B. IP address
- C. routing protocols
- D. MTU

## Correct Answer: A, D

#### Section:

## **Explanation:**

Two physical interface properties in Junos OS include the MAC address (A) and the Maximum Transmission Unit (MTU) size (D). The MAC address is a hardware identifier for the network interface, while the MTU size determines the largest packet size that the interface can transmit without needing to fragment the packet.

## **QUESTION 31**

What is the primary system log file that is present in the default configuration of a Junos device?

- A. kmd
- B. messages
- C. vrrp
- D. jsrpd

## **Correct Answer: B**

#### Section:

## Explanation:

In the default configuration of a Junos device, the primary system log file is 'messages' (B). This log file contains a wide range of system messages, including operational status changes, system errors, and other critical information, making it a key resource for troubleshooting and monitoring the system's health.

## **QUESTION 32**

What are two examples of exception traffic? (Choose two.)

- A. transit packets
- B. routing updates
- C. log messages
- D. ping to the local device

## Correct Answer: B, C

#### Section:

## **Explanation:**

Exception traffic includes traffic that is not simply forwarded by the router but requires special handling, such as routing updates (B) and log messages (C). These types of traffic are processed by the router's control plane rather than just being forwarded through the data plane.

## **QUESTION 33**

What is the maximum number of rollback configuration files that the Junos OS will store?

# A. 65

B. 50

C. 25

D. 19

# Correct Answer: B

# Section:

## Explanation:

Junos OS can store up to 50 rollback configuration files, making B the correct answer. These rollback files allow administrators to revert to previous configurations, providing a safety net that facilitates recovery from configuration errors or undesired changes