

**Exam Code: JN0-105**

**Exam Name: Junos, Associate**



## Exam A

### QUESTION 1

What are two types of transit traffic that traverse the forwarding plane of a Layer 3 router? (Choose two.)

- A. unicast traffic
- B. multicast traffic
- C. exception traffic
- D. broadcast traffic

**Correct Answer: A, B**

**Section:**

**Explanation:**

Transit traffic that traverses the forwarding plane of a Layer 3 router includes both unicast and multicast traffic types. Unicast traffic is directed from a single source to a single destination, while multicast traffic is sent from one source to multiple destinations that are part of a multicast group. These types of traffic are efficiently routed through the network by leveraging the router's forwarding plane capabilities. Exception traffic, which requires special handling by the control plane, and broadcast traffic, which is typically limited to a single broadcast domain and not usually forwarded by Layer 3 routers, are not considered standard types of transit traffic for the forwarding plane of a router.

### QUESTION 2

Which protocol is responsible for learning an IPv4 neighbor's MAC address?

- A. Address Resolution Protocol (ARP)
- B. Network Address Translation (NAT)
- C. Media Access Control Security (MACsec)
- D. Neighbor Discovery Protocol (NDP)

**Correct Answer: A**

**Section:**

**Explanation:**

The Address Resolution Protocol (ARP) is responsible for mapping an IPv4 address to a machine's MAC address. ARP operates at Layer 2 of the OSI model and is used to find the MAC address of a host given its IPv4 address. When a device wants to communicate with another device on the same local network, it uses ARP to discover the recipient's MAC address.

Juniper official documentation: ARP.

Networking standards: RFC 826.

### QUESTION 3

Exhibit

```
policy-options {  
  policy-statement Load-Balance-Policy {  
    term Load-Balance {  
      then {  
        load-balance per-flow; accept;  
      }  
    }  
  }  
}
```

```
routing-options {  
  router-id 192.168.100.11; autonomous-system 65201; forwarding-table {  
    export Load-Balance-Policy;  
  }  
}
```

Referring to the exhibit, which two statements are correct? (Choose two.)



- A. The policy enables equal cost load balancing in the forwarding table.
- B. The policy must be applied under the protocols hierarchy.
- C. The policy enables per-packet load balancing.
- D. The policy enables flow-based load balancing.

**Correct Answer: A**

**Section:**

**Explanation:**

The load-balance per-flow statement in the Junos OS policy-options configuration enables flow-based load balancing in the forwarding table. This means that the traffic is distributed across multiple paths based on flows, where a flow is typically identified by attributes such as source and destination IP addresses, and possibly layer 4 information like TCP/UDP ports. This allows for more granular and efficient utilization of available paths, avoiding overloading a single path. The policy does not enable per-packet load balancing, which would send individual packets of the same flow over different paths, potentially causing out-of-order delivery issues. The policy's placement in the forwarding-table export suggests it's intended to influence forwarding behavior, not just routing protocol decisions, and does not necessarily have to be applied under the protocols hierarchy.

#### **QUESTION 4**

Click the Exhibit button.



```
[edit firewall filter test]
term 1 {
  from {
    source-address {
      10.0.0.0/8;
    }
  }
  then {
    log;
    next term;
  }
}
term 2 {
  then {
    reject;
  }
}
}
```



How is traffic, sourced from 10.0.0.0/8, treated by the firewall filter shown in the exhibit?

- A. logged and discarded
- B. logged and rejected
- C. logged with no further action
- D. logged and accepted

**Correct Answer: D**

**Section:**

**Explanation:**

The firewall filter configuration in the exhibit specifies a filter with two terms. Term 1 matches traffic from the source address 10.0.0.0/8 and has two actions: 'log' and 'next term'. The 'log' action will record the match to a log file, and 'next term' indicates that the firewall should evaluate the next term after logging. There is no explicit action such as 'accept' or 'reject' in term 1, so by default, the traffic will be accepted unless subsequently rejected.

by another term.

Term 2 has the action 'reject', which discards packets that reach this term. Since there is no 'from' condition in term 2, it acts as a default rule for all traffic not matched by term 1.

Because the traffic sourced from 10.0.0.0/8 matches term 1 and there is no reject action in that term, it will be logged and then accepted by the firewall filter. There is no subsequent term that rejects this specific traffic, so the action from term 2 does not apply to it.

#### QUESTION 5

Which two statements describe the result when you enter ? at the command-line prompt? (Choose two.)

- A. It lists the available commands and options.
- B. It lists tips for the help menu.
- C. It displays help about a text string contained in a statement.
- D. It displays summary information about the commands and options.

**Correct Answer: A, D**

**Section:**

**Explanation:**

When you enter ? at the command-line prompt in Junos OS, the system provides assistance in two significant ways. Firstly, it lists the available commands and options that can be used at the current point in the command hierarchy, aiding users in understanding what commands they can execute next. Secondly, it displays summary information about those commands and options, providing brief descriptions or additional context that can help users understand the function of each command or option. This feature is particularly useful for learning the command structure or for quick reference when specific command syntax is forgotten.

#### QUESTION 6

Which two statements are true about the candidate configuration? (Choose two.)

- A. Candidate configuration changes are automatically applied.
- B. You can deploy multiple changes at the same time.
- C. Multiple users cannot modify the same candidate configuration.
- D. You can discard changes before committing them.



**Correct Answer: B, D**

**Section:**

**Explanation:**

The candidate configuration in Junos OS is a temporary configuration that allows network administrators to make and stage multiple configuration changes before applying them to the device. This approach enables the deployment of multiple changes in a single operation, ensuring that all configurations work together as intended before making them active. Additionally, the candidate configuration can be discarded if the administrator decides not to apply the staged changes, allowing for a 'trial and error' approach without affecting the currently active configuration. This feature provides flexibility and reduces the risk of disruptive changes to the network.

#### QUESTION 7

Which two statements about route preference in Junos are correct? (Choose two.)

- A. Both direct and static routes have the same preference.
- B. Both direct and local routes have the same preference.
- C. Both OSPF internal and OSPF AS external routes have the same preference.
- D. Both EBGP and IBGP routes have the same preference.

**Correct Answer: B, C**

**Section:**

**Explanation:**

In Junos OS, route preference (also known as administrative distance) is used to determine the preferred route among multiple routes to the same destination learned via different routing protocols. Direct and local routes, which represent directly connected networks and interfaces, typically share the same low preference value, indicating high trustworthiness because they are directly connected to the router. OSPF internal routes (routes

within the same OSPF area) and OSPF AS external routes (routes that are external to the OSPF autonomous system but redistributed into OSPF) also share the same preference value, although this value is higher (indicating less trust) than for direct and local routes. This distinction helps the routing engine decide which routes to use when multiple paths are available.

#### QUESTION 8

Which two statements are correct about the `employee@R1>` prompt? (Choose two.)

- A. R1 is the hostname of your device.
- B. You are in operational mode.
- C. You are in configuration mode.
- D. You are at a shell prompt.

**Correct Answer: A, B**

**Section:**

**Explanation:**

In Junos OS, the prompt `employee@R1>` indicates the current context of the user interface. The 'R1' part of the prompt signifies the hostname of the device, which in this case is 'R1'. The absence of a '#' symbol at the end of the prompt suggests that the user is in operational mode, as opposed to configuration mode which is indicated by a prompt ending in '#'. Operational mode allows users to view the status of the device and execute operational commands, but does not allow for configuration changes.

#### QUESTION 9

What are two link-state routing protocols? (Choose two.)

- A. RIP
- B. BGP
- C. OSPF
- D. IS-IS



**Correct Answer: C, D**

**Section:**

**Explanation:**

Link-state routing protocols are a type of routing protocol used in packet-switching networks for finding the best path between source and destination. OSPF (Open Shortest Path First) and IS-IS (Intermediate System to Intermediate System) are both examples of link-state routing protocols. They work by maintaining a complete map or topology of the network, allowing routers to independently calculate the best path to each destination. Unlike distance-vector protocols like RIP, link-state protocols are more efficient and scalable, making them suitable for larger networks.

#### QUESTION 10

Which two statements are correct about MAC addresses? (Choose two.)

- A. Switches use the Address Resolution Protocol table to assign MAC addresses to network interface cards in the forwarding frame.
- B. The source and destination MAC addresses always remains static to the final destination.
- C. The MAC address identifies the physical hardware.
- D. Switches use the destination MAC address to identify the next-hop destination and to change the destination MAC address in the frame.

**Correct Answer: C, D**

**Section:**

**Explanation:**

MAC (Media Access Control) addresses are unique identifiers assigned to network interfaces for communications at the data link layer of a network segment. MAC addresses are used to identify the physical hardware on a network. In the context of Ethernet switches, the destination MAC address in incoming frames is used to determine the appropriate output port for forwarding the frame towards its final destination. The switch does not change the destination MAC address; it uses the MAC address to make forwarding decisions within the local network segment.

**QUESTION 11**

How many login classes are assignable to a user account?

- A. 3
- B. 2
- C. 4
- D. 1

**Correct Answer: D**

**Section:**

**Explanation:**

<https://www.juniper.net/documentation/us/en/software/junos/user-access-evo/user-access/topics/topic-map/junos-os-login-class.html#:~:text=You%20can%20define%20any%20number,to%20an%20individual%20user%20account.>

In Junos OS, each user account can be assigned only one login class. Login classes in Junos OS define the permissions for users, controlling what they can access and modify within the system. This setup helps in maintaining a clear and secure access control mechanism.

Junos OS Documentation on User Accounts and Login Classes.

**QUESTION 12**

You are asked to view the real-time usage statistics for the busiest interfaces on a device running Junos OS.

Which command will achieve this task?

- A. monitor traffic absolute-sequence
- B. monitor interface traffic
- C. monitor traffic
- D. show interfaces extensive



**Correct Answer: B**

**Section:**

**Explanation:**

To view real-time usage statistics for the busiest interfaces on a device running Junos OS, the correct command is B, 'monitor interface traffic.' This command provides a dynamic, real-time view of the traffic flowing through the interfaces, allowing administrators to quickly identify and monitor the busiest interfaces on the device.

**QUESTION 13**

Which type of device uses the destination IP address to forward packets?

- A. Layer 3 router
- B. Layer 2 switch
- C. repeater
- D. hub

**Correct Answer: A**

**Section:**

**Explanation:**

A Layer 3 router forwards packets based on the destination IP address. It operates at the network layer of the OSI model and uses routing tables to determine the best path for packet delivery. Unlike Layer 2 switches, which forward packets based on MAC addresses, routers handle logical addressing, making them crucial for inter-network communication.

Junos OS Documentation on Routing Fundamentals.

**QUESTION 14**

You have just increased the MTU size of interface ge-0/0/0 and committed the configuration. Which command would help you identify the applied MTU change?

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

**Correct Answer: D**

**Section:**

**Explanation:**

After increasing the MTU size of an interface and committing the configuration, the command to verify the applied MTU change is D, 'show interfaces ge-0/0/0.' This command displays detailed information about the interface, including the current MTU size, making it the best choice for verifying the applied changes.

#### QUESTION 15

When considering routing policies, which two statements are correct? (Choose two.)

- A. Routing policies are applied to interfaces as input or export filters.
- B. An import routing policy for BGP determines which received prefix advertisements are placed in the routing information base.
- C. Policy terms are evaluated from top to bottom with action taken on the first match found.
- D. Policy terms are evaluated from top to bottom with the most restrictive action taken of all the matching terms.

**Correct Answer: B, C**

**Section:**

**Explanation:**

Routing policies in Junos OS are crucial for controlling route advertisements and path selection. The correct answers are B and C. An import routing policy for BGP determines which received prefix advertisements are placed in the routing information base (RIB), and policy terms are evaluated from top to bottom, with action taken on the first match found. This sequential evaluation allows for precise control over routing decisions.

#### QUESTION 16

When considering routing tables and forwarding tables, which two statements are correct? (Choose two.)

- A. The routing table is used by the RE to select the best route.
- B. The forwarding table stores all routes and prefixes from all protocols.
- C. The forwarding table is used by the RE to select the best route.
- D. The routing table stores all routes and prefixes from all protocols.

**Correct Answer: A, D**

**Section:**

**Explanation:**

The routing table and forwarding table play distinct roles in a Junos OS device. The correct answers are A and D. The routing table (A) is used by the Routing Engine (RE) to select the best route among all the learned routes, while the routing table (D) stores all routes and prefixes learned from all routing protocols. The forwarding table, in contrast, contains only the active routes chosen by the RE and is used by the Packet Forwarding Engine for actual packet forwarding.

#### QUESTION 17

What are two attributes of the UDP protocol? (Choose two.)

- A. UDP is more reliable than TCP.



- B. UDP is always slower than TCP.
- C. UDP is best effort.
- D. UDP is connectionless.

**Correct Answer: C, D**

**Section:**

**Explanation:**

UDP (User Datagram Protocol) is known for being connectionless (D) and providing best-effort delivery without the reliability mechanisms present in TCP (C). This means that UDP does not establish a connection before sending data and does not guarantee delivery, order, or error checking, making it faster but less reliable than TCP.

#### QUESTION 18

You are creating a new policy to accept and redistribute routes into your IGP.

In this scenario, which match criteria would you use to identify the route prefixes to select?

- A. instance
- B. route-type
- C. neighbor
- D. route-filter

**Correct Answer: D**

**Section:**

**Explanation:**

When creating a new policy to accept and redistribute routes into your Interior Gateway Protocol (IGP), the route-filter match criteria is used to identify the route prefixes to select. The route-filter statement specifies which prefixes should be matched in a policy. This allows for precise control over which routes are accepted and redistributed, facilitating efficient and secure routing policies within the network.

'show | display set | match ge-0/0/2' indicating command examples and match criteria from Useful Juniper Commands.txt.

Juniper official documentation: Routing Policy and Firewall Filters Configuration Guide.

#### QUESTION 19

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 20

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 21

Exhibit

```
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
```

```
root# set system root-authentication plain-text-password
```

New password:

Retype new password:

```
root# commit and-quit [edit interfaces] 'ge-0/0/0' HA management port cannot be configured error: configuration check-out
```

```
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 22

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 23

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 24

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 25

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 26

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



- A. IGP 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 27

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 28

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 29

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 30

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 31

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 32

Exhibit

```
user@router> show route 192.168.100.2
inet.0: 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 33

Click the Exhibit button.

A Exhibit Vdumps

```
user@router> show route

inet.0: 13 destinations, 14 routes (13 active, 0 holddown, 0
hidden)
+ = Active Route, - = Last Active, * = Both

0.0.0.0/0          *[Static/5] 00:05:38
                   > to 172.29.1.1 via ge-0/0/3.0
```

Referring the exhibit, what does the highlighted number indicate?

- A. route preference is 5
- B. hop count is 5
- C. cost is 5
- D. metric is 5

**Correct Answer: A**

**Section:**

**Explanation:**

In the exhibit shown, the highlighted number next to the route type (Static) within the square brackets indicates the route preference, also known as the administrative distance. In Junos, the route preference is a value that determines the priority of the route source. Lower numbers indicate a higher priority when the routing table is being calculated. The route preference is used to select the best route when multiple paths to the same destination exist from different routing sources. The number 5 is unusually low for a static route by default, suggesting it has been manually configured to override other route types.

#### QUESTION 34

What does the user@router> clear log ospf-trace command accomplish?

- A. Logging data into ospf-trace is stopped.
- B. Trace parameters are removed from the OSPF protocol configuration.
- C. Data in the ospf-trace file is removed and logging continues.
- D. The ospf-trace file is deleted.

**Correct Answer: C**

**Section:**

**Explanation:**

The clear log ospf-trace command on a Juniper Networks router is used specifically to manage the contents of the log file named ospf-trace. Executing this command clears or deletes the existing data within the ospf-trace log file but does not stop the logging process. The router continues to log new OSPF-related events and data into this file after the command is executed. This functionality is crucial for troubleshooting and monitoring the OSPF (Open Shortest Path First) protocol's operation by allowing network administrators to remove old or irrelevant log data while continuously capturing new events without interruption.

#### QUESTION 35

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 36**

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 37**

Which command displays all IPv6 routes in the default routing instance?

- A. show route table inet.0
- B. show route table inet6.1
- C. show route table inet.1
- D. show route table inet6.0

**Correct Answer: D**

**Section:**

**Explanation:**

The show route table inet6.0 command displays all IPv6 routes in the default routing instance. In Junos OS, the routing table for IPv6 addresses is referred to as inet6.0, whereas inet.0 is used for IPv4 unicast routes. The other options do not correspond to the correct IPv6 routing table.

Juniper official documentation: Junos OS Routing Tables Overview.

**QUESTION 38**

You are configuring a firewall filter on a Juniper device.  
In this scenario, what are two valid terminating actions? (Choose two.)

- A. 1 count
- B. 2discard
- C. 3next term
- D. 4accept

**Correct Answer: B, D**

**Section:**

**Explanation:**

In Juniper firewall filter configurations, 'discard' and 'accept' are two valid terminating actions for a term within a filter. The 'discard' action drops the packet, preventing it from reaching its intended destination, while the 'accept' action allows the packet to pass through the filter, proceeding to its next hop or destination. 'Count' is a non-terminating action that increments a counter every time a packet matches the term but does not inherently determine the packet's fate. 'Next term' directs the evaluation to proceed to the next term in the filter for further processing, also a non-terminating action.

**QUESTION 39**

Which two statements about firewall filters are correct? (Choose two.)

- A. Firewall filters are stateless.
- B. Firewall filters can match Layer 7 parameters.
- C. Firewall filters are stateful.
- D. Firewall filters can match Layer 4 parameters.

**Correct Answer: A, D**

**Section:**

**Explanation:**

Firewall filters in Junos OS are stateless, meaning they process each packet individually without regard to the state of a connection or sequence of packets. These filters can match various packet attributes, including those at Layer 4, such as TCP and UDP port numbers. This allows for granular control over traffic based on the type of service or application. Unlike stateless filters, stateful firewalls keep track of the state of active connections and make decisions based on the context of the traffic flow, which is not a capability of Junos firewall filters. Additionally, Junos firewall filters primarily operate up to Layer 4 and do not natively inspect Layer 7 parameters, which involve application-level data.

#### QUESTION 40

You have configured some interfaces on a Junos device; however, you have not yet committed the configuration. What happens if you issue the rollback 0 command in this scenario?

- A. The messages.log file is deleted.
- B. The factory default configuration is loaded.
- C. The Junos device is rebooted.
- D. The interface changes you made are discarded.

**Correct Answer: D**

**Section:**

**Explanation:**

Issuing the rollback 0 command in Junos OS will discard any uncommitted changes and revert to the last committed configuration. This command effectively cancels any configuration changes that have been made but not yet committed, ensuring that the device returns to its previous stable state.

'rollback 0 .....(rolls back the changes just made )' from Useful Juniper Commands.txt.

Juniper official documentation: Rolling Back a Configuration.

#### QUESTION 41

You want to redeploy a Junos device by clearing the existing configuration and resetting it to factory defaults. In this scenario, which command would help to accomplish this task?

- A. show system storage
- B. request system storage cleanup
- C. request system storage cleanup dry-run
- D. request system zeroize media

**Correct Answer: D**

**Section:**

**Explanation:**

The request system zeroize media command on a Junos device securely erases all data, including configuration and log files, and resets the device to its factory default settings. This command is used when redeploying a device to ensure no residual data remains from its previous deployment. It's a comprehensive and secure way to clear all configurations and data, making the device as if it were new. The other commands listed do not perform a full reset to factory defaults; for example, show system storage displays storage information, and request system storage cleanup offers to delete unnecessary files without resetting the device to factory settings.



**QUESTION 42**

By default, how does the PFE manage unicast traffic destined for an existing forwarding table entry?

- A. It sends the traffic through multiple ports toward its destination.
- B. It sends the traffic through one port toward its destination.
- C. It sends the traffic through the fxpl interface to the RE.
- D. It sends all traffic to the control plane for further processing.

**Correct Answer: B**

**Section:**

**Explanation:**

In a Juniper Networks device, the Packet Forwarding Engine (PFE) processes unicast traffic by forwarding it according to the existing entries in the forwarding table. When the PFE encounters unicast traffic destined for an address that has a corresponding entry in the forwarding table, it directs the traffic through a specific outgoing interface or port toward its destination. This process is based on the most efficient path determined by the routing protocols in use, ensuring that the packet reaches its intended destination through a singular path, unless specific configurations such as load balancing are in place.

**QUESTION 43**

What information does the forwarding table require so that the device forwards traffic? (Choose three.)

- A. OSPF metric value
- B. next hop IP address
- C. BGP local preference value
- D. outgoing interface name
- E. next hop MAC address

**Correct Answer: B, D, E**

**Section:**

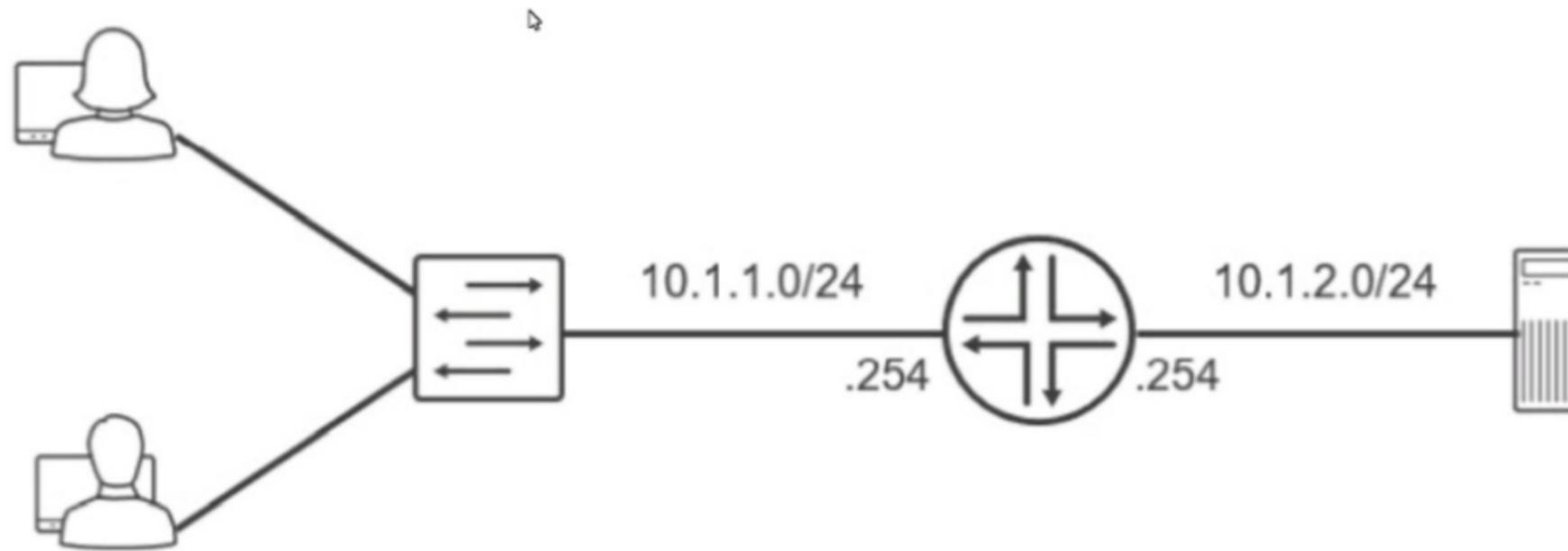
**Explanation:**

The forwarding table in a network device requires specific information to efficiently forward traffic toward its destination. This includes the next hop IP address, which indicates the next router or device in the path to the destination. The outgoing interface name identifies the physical or logical interface through which the packet should be sent to reach the next hop. Lastly, the next hop MAC address is crucial for Layer 2 forwarding decisions, allowing the device to encapsulate the IP packet in a frame that can be understood by Ethernet or other Layer 2 protocols. OSPF metric values and BGP local preference values are used in the routing decision process to select the best path and populate the forwarding table but are not directly used by the forwarding table to forward traffic.

**QUESTION 44**

Exhibit.





Referring to the exhibit, which routing configuration is required for these two users to access the remote server?

- A. Users must connect directly to the router.
- B. Users and the server require a default gateway.
- C. Trunk ports must be enabled on the switch.
- D. A routing protocol must be enabled on the router.



**Correct Answer: B**

**Section:**

**Explanation:**

For the users in the 10.1.1.0/24 subnet and the server in the 10.1.2.0/24 subnet to communicate with each other, they need to route packets through the router that connects these two subnets. Each user and the server need to have their default gateway set to the IP address of the router interface on their respective subnet (.254). This ensures that packets destined for other subnets are sent to the router, which then routes them to the correct destination subnet.

Juniper official documentation: Configuring Basic Routing.

General networking principles.

#### QUESTION 45

Which process in the Junos OS is responsible for maintaining routing protocols and tables?

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

**Correct Answer: C**

**Section:**

**Explanation:**

The Routing Protocol Daemon (rpd) in Junos OS is responsible for maintaining routing protocols and tables. It handles all routing information, including the calculation of routes and the population of the routing table, making it crucial for dynamic routing operations.

#### QUESTION 46

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 47

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 48

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 49

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.

In Junos OS, each device supports only one rescue configuration file. The rescue configuration is a specific configuration that can be saved and later retrieved if needed. This is used as a fallback configuration that you know works and can be applied in case of an emergency or if the current configuration has issues.

'You can create a rescue configuration file by using the request system configuration rescue save operational mode command. Each Junos OS device can have only one rescue configuration file.'

#### QUESTION 50

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 51

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 52

Exhibit

```
user@router> show route 192.168.36.1
```

```
inet.0: 5 destinations, 6 routes (5 active, 0 holddown, 0 hidden) + = Active Route, - = Last Active, * = Both
```

```
192.168.36.1/32 *[Static/5] 00:00:31
```

```
> to 10.1.1.2 via ge-0/0/10.0 [OSPF/IO] 00:02:21, metric 1 > to 10.1.1.2 via ge-0/0/10.0
```



Referring to the exhibit, which route(s) will be selected by Junos for packet forwarding?

- A. The OSPF route will be selected.
- B. The static route will be selected.
- C. The Junos OS randomly selects one route.
- D. The Junos OS selects both routes.

**Correct Answer: B**

**Section:**

**Explanation:**

Junos OS selects routes based on the route preference (also known as administrative distance). Static routes typically have a lower route preference than OSPF routes, meaning they are more preferred. Since the static route to 192.168.36.1/32 is shown with a preference of 5, it will be selected over the OSPF route for packet forwarding, assuming no other factors such as route filters or policies affect the routing decision.

#### QUESTION 53

Which service does RADIUS provide?

- A. routing
- B. authentication
- C. DNS resolution
- D. time synchronization

**Correct Answer: B**

**Section:**

**Explanation:**

RADIUS, which stands for Remote Authentication Dial-In User Service, provides authentication services for users trying to access a network. It is a networking protocol that provides centralized Authentication, Authorization, and Accounting (AAA) management for users who connect and use a network service.

#### QUESTION 54

What are two methods for navigating to configuration mode from an operational mode prompt? (Choose two.)

- A. Use the edit command.
- B. Use the quit command.
- C. Use the exit command.
- D. Use the configure command.

**Correct Answer: A, D**

**Section:**

**Explanation:**

In Junos OS, to navigate from operational mode to configuration mode, you can use either the edit or configure command. Both commands move the CLI from operational mode, where you can view the state of the device, to configuration mode, where you can make changes to the device's configuration.

#### QUESTION 55

What are two functions of the Routing Engine? (Choose two.)

- A. It processes all management traffic.
- B. It runs the Junos operating system.
- C. It evaluates firewall filters for transit traffic.

D. It processes transit traffic.

**Correct Answer: A, B**

**Section:**

**Explanation:**

The Routing Engine (RE) in Junos OS has several critical functions, including processing all management traffic (A) and running the Junos operating system (B). The RE handles system management tasks, user interfaces, system services, and routing protocol processes. It does not directly process transit traffic or evaluate firewall filters for transit traffic, as these tasks are handled by the Packet Forwarding Engine (PFE).

#### QUESTION 56

You are asked to convert the number 7 from decimal to binary.  
Which number is correct in this scenario?

- A. 00001000
- B. 00010000
- C. 00000111
- D. 11100000

**Correct Answer: C**

**Section:**

**Explanation:**

To convert the decimal number 7 to binary, the correct representation is 00000111 (C). In binary, 7 is represented as  $1+2+4$  ( $2^0 + 2^1 + 2^2$ ), which corresponds to the last three digits being 1 in the binary format, with leading zeros added for clarity.

#### QUESTION 57

Which statement is correct when multiple users are configuring a Junos device using the `configure private` command?

- A. A commit by any user will commit changes made by all active users.
- B. A commit will not succeed until there is only a single user in configuration mode.
- C. Each user gets their own candidate configuration.
- D. Each user shares the same candidate configuration.

**Correct Answer: C**

**Section:**

**Explanation:**

When multiple users are configuring a Junos device using the `'configure private'` command, each user gets their own candidate configuration (C). This allows for isolated configuration sessions, where changes made by one user do not impact or interfere with the changes made by another user in their private session.

#### QUESTION 58

You are logged in to a Junos OS device with SSH and issued the `show protocols | compare` command in the configuration, but no output is shown.  
Which statement is correct in this scenario?

- A. The command only works for interface configuration differences.
- B. There are no changes to the candidate configuration.
- C. Someone accidentally deleted the active configuration.
- D. You must commit the configuration before any output will be shown.

**Correct Answer: B**

**Section:**

**Explanation:**

The show | compare command in Junos OS is used to display the differences between the candidate configuration and the active configuration. If no output is shown when you issue this command, it means that there are no changes between the candidate configuration and the active configuration. This indicates that the candidate configuration is identical to the active configuration, and thus no differences are displayed.

'The show | compare command displays the differences between the candidate configuration and the active configuration. If there are no changes, no output is displayed.'

**QUESTION 59**

After the factory default configuration is loaded, which configuration object must be created prior to the first commit?

- A. root authentication
- B. loopback IP address
- C. out-of-band connectivity
- D. host name

**Correct Answer: A**

**Section:**

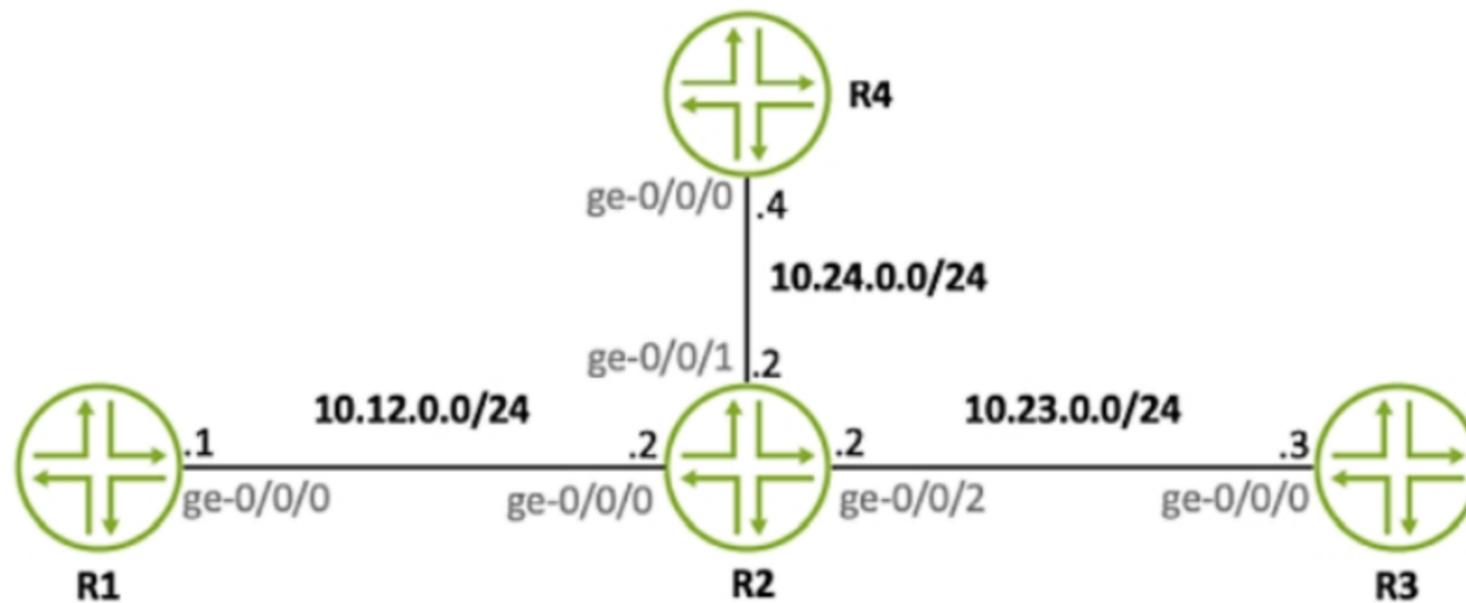
**Explanation:**

In Juniper Networks devices, when the factory default configuration is loaded, the first step before committing any configuration is to set up root authentication. This is crucial because it secures the device by ensuring that only authorized users have administrative access. Without setting up a root password, the device will not allow any commit operations, which is a safety measure to prevent unauthorized access. This requirement emphasizes the importance Juniper places on security right from the initial setup of the device.

**QUESTION 60**

Click the Exhibit button.





```

R2> ping 10.23.0.3
PING 10.23.0.3 (10.23.0.3): 56 data bytes
64 bytes from 10.23.0.3: icmp_seq=0 ttl=64 time=2.654 ms
64 bytes from 10.23.0.3: icmp_seq=1 ttl=64 time=2.673 ms
64 bytes from 10.23.0.3: icmp_seq=2 ttl=64 time=2.229 ms
^C
--- 10.23.0.3 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max/stddev = 2.229/2.519/2.673/0.205 ms
  
```

Referring to the exhibit, what is the source IP address of the ping that was executed?

- A. 10.12.0.2
- B. 10.23.0.2
- C. 10.23.0.3
- D. 10.24.0.4

**Correct Answer: B**

**Section:**

**Explanation:**

The exhibit shows a ping test being executed from router R2 to the IP address 10.23.0.3. Since the ping command is issued on R2 and we see successful replies from 10.23.0.3, it means the source of the ping must be an interface on R2. Given the network diagram and the IP address scheme, the source IP address of the ping is on the interface ge-0/0/2 of R2, which is in the subnet 10.23.0.0/24. The only logical IP address for R2's interface in this subnet, based on standard networking practices and the given options, would be 10.23.0.2. The other addresses provided in the options belong to different subnets or are the destination of the ping itself.

**QUESTION 61**

Which two statements apply to the Routing Engine functions? (Choose two.)

- A. It responds to ping and traceroute commands.
- B. It maintains the routing tables.
- C. It does not process routing updates.
- D. It processes the transit traffic.

**Correct Answer: A, B**

**Section:**

**Explanation:**

The Routing Engine (RE) in Juniper Networks devices plays a critical role in the control plane operations. One of its functions includes responding to network utility commands like ping and traceroute, which are essential for diagnosing network connectivity and path issues. Furthermore, the RE is responsible for maintaining the routing tables, which contain information about network paths and destinations. These tables are vital for making forwarding decisions but are distinct from the actual forwarding of packets, which is handled by the Packet Forwarding Engine (PFE).

**QUESTION 62**

Which two actions happen when multiple users issue the configure exclusive command to enter configuration mode on a Junos device? (Choose two.)

- A. Other users can enter configuration mode.
- B. The candidate configuration is unlocked.
- C. The candidate configuration is locked.
- D. Other users cannot enter configuration mode.

**Correct Answer: C, D**

**Section:**

**Explanation:**

In Junos OS, when a user issues the configure exclusive command, it locks the candidate configuration for that user, preventing other users from making concurrent configuration changes. This exclusive lock ensures that configuration changes are managed in a controlled manner, reducing the risk of conflicting changes. As a result, while one user is in exclusive configuration mode, other users are prevented from entering configuration mode until the lock is released, either by the user committing the changes or exiting configuration mode.

**QUESTION 63**

Which statement is correct concerning exception traffic processing?

- A. Exception traffic is always dropped during congestion.
- B. Exception traffic is rate-limited to protect the RE.
- C. Exception traffic is discarded by the PFE.
- D. Exception traffic is never forwarded.

**Correct Answer: B**

**Section:**

**Explanation:**

Exception traffic refers to packets that the Packet Forwarding Engine (PFE) cannot process normally and must be forwarded to the Routing Engine (RE) for further processing. This includes packets destined for the router itself or packets needing special handling that the PFE cannot provide. To protect the RE from being overwhelmed by such traffic, which could potentially impact the router's control plane functions, exception traffic is rate-limited. This means that there's a threshold to how much exception traffic can be sent to the RE, ensuring that the router's critical management and control functions remain stable and responsive even during high traffic volumes or attacks.

**QUESTION 64**

Which component is considered part of the data plane?

- A. the Routing Engine
- B. the Packet Forwarding Engine
- C. the power supply
- D. the fan tray

**Correct Answer: B**

**Section:**

**Explanation:**

The Packet Forwarding Engine (PFE) is an integral component of Juniper Networks devices, responsible for the data plane operations. The data plane, also known as the forwarding plane, is where the actual processing and forwarding of packets occur based on the routing and forwarding tables. The PFE executes the forwarding decisions made by the Routing Engine (RE), handling all packet transmissions, including routing, filtering, and switching packets towards their destination. This contrasts with the control plane operations handled by the RE, which involve routing table maintenance, system management, and control protocol processing.

#### QUESTION 65

Which two statements are correct about a Routing Engine? (Choose two.)

- A. It processes CoS marked traffic.
- B. It forwards transit traffic.
- C. It processes management traffic.
- D. It maintains routing tables.

**Correct Answer: C, D**

**Section:**

**Explanation:**

The Routing Engine (RE) in Juniper Networks devices plays a pivotal role in the control plane, handling tasks that are critical for the operation and management of the network. One of its key functions is processing management traffic, which includes user commands, system configuration, and monitoring operations. The RE also maintains routing tables, which are essential for network routing decisions. These tables contain network topology information and routing paths, which the RE uses to update the Packet Forwarding Engine (PFE) so that it can forward packets appropriately. The RE does not forward transit traffic or process Class of Service (CoS) marked traffic, as these tasks are handled by the PFE.

#### QUESTION 66

Your network infrastructure transports data, voice, and video traffic. Users are complaining that voice and video calls are not performing to their expectations. In this scenario, which technology would you implement to improve voice and video performance on your network?

- A. NAT
- B. CoS
- C. STP
- D. IPv6

**Correct Answer: B**

**Section:**

**Explanation:**

In a network that carries diverse types of traffic like data, voice, and video, ensuring the performance of latency-sensitive applications such as voice and video calls is crucial. Class of Service (CoS) is a technology designed to prioritize network traffic, ensuring that critical applications like voice and video receive the necessary bandwidth and minimal latency. CoS mechanisms can include traffic classification, traffic policing, queue management, and scheduling. By implementing CoS, network administrators can assign higher priority to voice and video traffic, thus improving their performance across the network and addressing the users' complaints about call quality.

#### QUESTION 67

A network administrator is attempting to route traffic on a Juniper switch to one of three different VLANs: Prod, Test, and Dev. Each VLAN has been assigned a numerical value. In this scenario, what are these numerical values called?

- A. defaults
- B. interfaces
- C. names
- D. tags

**Correct Answer: D**

**Section:**

**Explanation:**

In the context of VLANs (Virtual Local Area Networks) on a Juniper switch, the numerical values assigned to each VLAN, such as those for Prod, Test, and Dev, are known as VLAN tags. These tags are part of the 802.1Q VLAN standard, which allows multiple VLANs to coexist on a single physical network. Each tag uniquely identifies the VLAN to which a frame belongs, enabling the switch to segregate and manage traffic based on VLAN membership. This tagging mechanism allows for efficient traffic separation and management, ensuring that devices within one VLAN do not receive traffic intended for another, thus maintaining network security and efficiency.

#### QUESTION 68

Which two statements are correct regarding Layer 2 network switches? (Choose two.)

- A. Switches create a single collision domain.
- B. Switches are susceptible to traffic loops.
- C. Switches flood broadcast traffic.
- D. Switches do not learn MAC addresses.

**Correct Answer: B, C**

**Section:**

**Explanation:**

Layer 2 network switches are crucial components in local area networks (LANs), providing multiple functions for data packet forwarding and network segmentation. One inherent characteristic of switches is their susceptibility to traffic loops, especially in networks with redundant paths. Without proper loop prevention protocols like Spanning Tree Protocol (STP), loops can cause broadcast storms and network instability. Additionally, switches inherently flood broadcast traffic to all ports within the broadcast domain, except the port on which the broadcast was received. This is because broadcast frames are meant to be delivered to all devices within the VLAN, and the switch ensures this by flooding these frames to all ports in the VLAN, except the source port.

#### QUESTION 69

Your router has a route to the 10.1.1.0/24 network with a next hop of r jet.

In this scenario, which action will your router perform when traffic destined to the 10.1.1.0/24 network is received?

- A. The traffic will be discarded and an ICMP unreachable message will be sent to the destination of the traffic.
- B. The traffic will be discarded and an ICMP unreachable message will be sent to the source of the traffic.
- C. The traffic will be redirected using a default route.
- D. The traffic will be silently discarded.

**Correct Answer: D**

**Section:**

**Explanation:**

In a scenario where a router has a route to a specific network (in this case, 10.1.1.0/24) with a next hop that is unreachable or incorrectly specified (e.g., 'r jet' seems to be a typo or an undefined entity), the router will typically discard the traffic destined for that network. This action is taken because the router cannot determine a valid path to forward the traffic. Unlike some scenarios where the router might generate an ICMP (Internet Control Message Protocol) unreachable message, in many configurations, especially in production networks, the traffic might be silently discarded without providing feedback to the sender, as generating ICMP messages for all undeliverable packets could lead to additional network congestion and potential security concerns.

#### QUESTION 70

Which layer of the OSI model contains the IP address information?

- A. Layer 2
- B. Layer 3
- C. Layer 1
- D. Layer 4

**Correct Answer: B**

**Section:**

**Explanation:**

The OSI (Open Systems Interconnection) model is a conceptual framework used to understand network interactions in seven distinct layers. IP (Internet Protocol) addresses are part of Layer 3, known as the Network Layer. This layer is responsible for packet forwarding, including routing through intermediate routers, and it handles the logical addressing scheme of the network to ensure that packets can be routed across multiple networks and reach their destination. IP addresses provide unique identifiers for network interfaces, allowing for communication between devices on a network or across different networks.

**QUESTION 71**

Click the Exhibit button.



The exhibit shows a Junos configuration snippet for OSPF. It includes three export policies (policy1, policy2, policy3) and a static route for 10.10.10.0/24. The static route is not covered by any of the export policies.

```
[edit protocols ospf]
user@router# show
area 0.0.0.0 {
    interface all;
}
export [ policy1 policy2 policy3 ];
[edit routing-options]
user@router# show
static {
    route 10.10.10.0/24 next-hop 192.168.1.254;
}
```

Referring to the exhibit, OSPF has three export policies that match different static route prefixes. The 10.10.10.0/24 static route does not match any terms in the policy1 routing policy. What happens next in this scenario?

- A. The static route is evaluated by the poicity3 routing policy.
- B. The static route is evaluated by the poicity2 routing policy.
- C. The static route is rejected by the default routing policy.
- D. The static route is rejected by the policy1 routing policy.

**Correct Answer: B**

**Section:**

**Explanation:**

In Junos, when multiple policies are applied to a routing protocol for route export, the routes are evaluated in the order in which the policies are listed. In the exhibit, the OSPF configuration has three export policies listed: policy1, policy2, and policy3. The static route 10.10.10.0/24 does not match any terms in policy1; therefore, it is not rejected by policy1 but is instead passed on to the next policy in the sequence, which is policy2.

If the static route matches a term in policy2 that permits the route, it will be exported into OSPF. If it does not match in policy2, it will then be evaluated by policy3. If there is no match in policy3 as well, and assuming there are no more policies listed, the route would then be subject to the default routing policy behavior, which typically rejects the route unless an explicit accept statement is present in the policies.

