XK0-005 Dumps

CompTIA Linux+ Certification Exam

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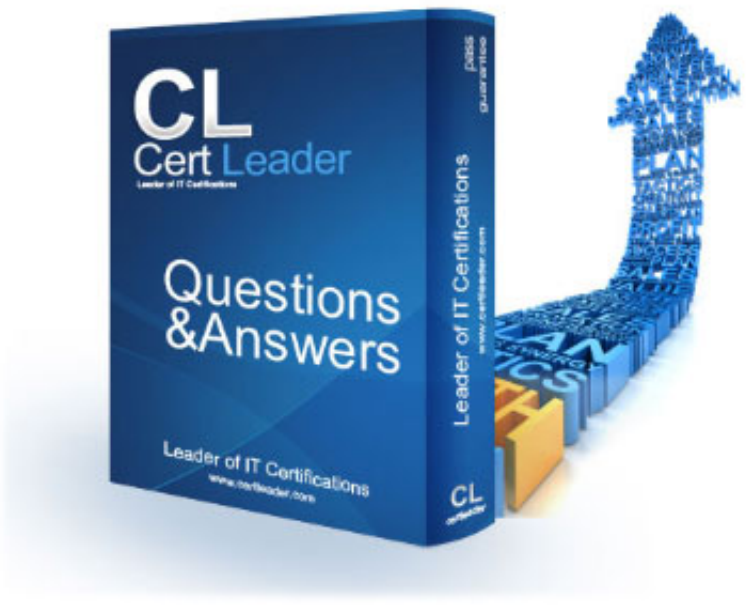


NEW QUESTION 1
A systems administrator wants to back up the directory /data and all its contents to /backup/data on a remote server named remote. Which of the following commands will achieve the desired effect?

A. scp -p /data remote:/backup/data
B. ssh -i /remote:/backup/ /data
C. rsync -a /data remote:/backup/
D. cp -r /data /remote/backup/

Answer: C

Explanation:
The command that will back up the directory /data and all its contents to /backup/data on a remote server named remote is rsync -a /data remote:/backup/. This command uses the rsync tool, which is a remote and local file synchronization tool. It uses an algorithm to minimize the amount of data copied by only moving the portions of files that have changed. The -a option stands for archive mode, which preserves the permissions, ownership, timestamps, and symbolic links of the files. The /data argument specifies the source directory to be backed up, and the remote:/backup/ argument specifies the destination directory on the remote server. The rsync tool will create a subdirectory named data under /backup/ on the remote server, and copy all the files and subdirectories from /data on the local server.
The other options are not correct commands for backing up a directory to a remote server. The scp -p /data remote:/backup/data command will copy the /data directory as a file named data under /backup/ on the remote server, not as a subdirectory with its contents. The -p option preserves the permissions and timestamps of the file, but not the ownership or symbolic links. The ssh -i /remote:/backup/ /data command will try to use /remote:/backup/ as an identity file for SSH authentication, which is not valid. The cp -r
/data /remote/backup/ command will try to copy the /data directory to a local directory named /remote/backup/, not to a remote server. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 18: Automating Tasks; rsync(1) - Linux manual page

NEW QUESTION 2
A Linux administrator needs to obtain a list of all volumes that are part of a volume group. Which of the following commands should the administrator use to accomplish this task?

A. vgs
B. lvs
C. fdisk -1
D. pvs

Answer: B

Explanation:
The lvs command can be used to obtain a list of all volumes that are part of a volume group. This command will display information such as the name, size, attributes, and volume group of each logical volume in the system. The vgs command can be used to obtain a list of all volume groups in the system, not the volumes. The fdisk -1 command is invalid, as -1 is not a valid option for fdisk. The pvs command can be used to obtain a list of all physical volumes in the system, not the volumes. References: CompTIA Linux+ (XK0- 005) Certification Study Guide, Chapter 14: Managing Disk Storage, page 461.

NEW QUESTION 3
The administrator comptia is not able to perform privileged functions on a newly deployed system. Given the following command outputs:

```
[root@newserver ~]# id comptia
uid=1000(comptia) gid=1000(comptia) groups=1000(comptia)

[root@newserver ~]# cat /etc/sudoers.d/admin
%admin ALL= (root) NOPASSWD: EXEC: /usr/bin/ps, /usr/bin/chmod, /usr/bin/yum, /usr/bin/cat, /usr/sbin/lvm,
/usr/sbin/pvs

[root@newserver ~]# grep comptia /etc/passwd
comptia:x:1000:1000:comptia:/home/comptia:/bin/bash

[root@newserver ~]# chage -l comptia
Last password change : never
Password expires : never
Password inactive : never
Account expires : never
Minimum number of days between password change : 0
Maximum number of days between password change : 99999
Number of days of warning before password expires : 7
```

Which of the following is the reason that the administrator is unable to perform the assigned duties?

A. The administrator needs a password reset.
B. The administrator is not a part of the correct group.
C. The administrator did not update the sudo database.
D. The administrator's credentials need to be more complex.

Answer: B

Explanation:
The reason that the administrator is unable to perform the assigned duties is because the administrator is not a part of the correct group. This is option B.
Based on the image that you sent, I can see that the user comptia has a user ID and a group ID of 1000, and belongs to only one group, which is also comptia. However, the sudoers file, which defines the permissions for users to run commands as root or other users, does not include the comptia group in any of the entries. Therefore, the user comptia cannot use sudo to perform privileged functions on the system.
The other options are incorrect because:
* A. The administrator needs a password reset.
This is not true, because the password aging information for the user comptia shows that the password was last changed on Oct 24, 2023, and it does not expire until Jan 22, 2024. There is no indication that the password is locked or expired.
* C. The administrator did not update the sudo database.
This is not necessary, because the sudo database is automatically updated whenever the sudoers file is modified. There is no separate command to update the sudo database.

* D. The administrator's credentials need to be more complex.
This is not relevant, because the complexity of the credentials does not affect the ability to use sudo. The sudoers file does not specify any password policy for the users or groups that are allowed to use sudo.

NEW QUESTION 4
A non-privileged user is attempting to use commands that require elevated account permissions, but the commands are not successful. Which of the following most likely needs to be updated?

A. /etc/passwd
B. /etc/shadow
C. /etc/sudoers
D. /etc/bashrc

Answer: C

Explanation:
The /etc/sudoers file is used to configure the sudo command, which allows non-privileged users to execute commands that require elevated account permissions1. The file contains a list of users and groups that are allowed to use sudo, and the commands they can run with it. The file also defines the security policy for sudo, such as whether a password is required, how long the sudo session lasts, and what environment variables are preserved or reset.
The /etc/passwd file is used to store information about the user accounts on the system, such as their username, user ID, home directory, and login shell. The /etc/shadow file is used to store the encrypted passwords for the user accounts, along with other information such as password expiration and aging. These files are not directly related to the sudo command, and updating them will not grant a user elevated account permissions.
The /etc/bashrc file is used to set up the environment for the bash shell, such as aliases, functions, variables, and options. This file is executed whenever a new bash shell is started, and it affects all users on the system. However, this file does not control the sudo command or its configuration, and updating it will not allow a user to use commands that require elevated account permissions.

NEW QUESTION 5
A Linux administrator is configuring a new internal web server fleet. The web servers are up and running but can only be reached by users directly via IP address. The administrator is attempting to fix this inconvenience by requesting appropriate records from the DNS team. The details are:
Hostname: devel.comptia.org
IP address: 5.5.5.1, 5.5.5.2, 5.5.5.3, 5.5.5.4
Name server: 5.5.5.254
Additional names: dev.comptia.org, development.comptia.org
Which of the following types of DNS records should the Linux administrator request from the DNS team? (Select three).

A. MX
B. NS
C. PTR
D. A
E. CNAME
F. RRSIG
G. SOA
H. TXT
I. SRV

Answer: BDE

Explanation:
The Linux administrator should request the following types of DNS records from the DNS team:
? A: This record type is used to map a hostname to an IPv4 address. The administrator needs four A records for devel.comptia.org, one for each IP address (5.5.5.1, 5.5.5.2, 5.5.5.3, 5.5.5.4). This will allow users to access the web servers by using the hostname devel.comptia.org instead of the IP addresses1.
? CNAME: This record type is used to create an alias for another hostname. The administrator needs two CNAME records, one for dev.comptia.org and one for development.comptia.org, both pointing to devel.comptia.org. This will allow users to access the web servers by using any of these three hostnames interchangeably1.
? NS: This record type is used to delegate a domain or a subdomain to another name server. The administrator needs one NS record for comptia.org, pointing to 5.5.5.254, which is the name server that hosts the records for the subdomain devel.comptia.org2. This will allow users to resolve the hostnames under comptia.org by querying the name server 5.5.5.2542.
The other record types are not relevant for the administrator's task:
? MX: This record type is used to specify the mail exchange server for a domain or a subdomain1. The administrator does not need this record type because the web servers are not intended to handle email traffic.
? PTR: This record type is used to map an IP address to a hostname, which is the reverse of an A record1. The administrator does not need this record type because the web servers are not expected to be accessed by their IP addresses.
? RRSIG: This record type is used to provide digital signatures for DNSSEC, which is a security extension for DNS that verifies the authenticity and integrity of DNS responses3. The administrator does not need this record type because it is not mentioned in the task requirements.
? SOA: This record type is used to provide information about the authoritative name server and other parameters for a domain or a subdomain1. The administrator does not need this record type because it is usually created automatically by the name server software when a new zone file is created4.
? TXT: This record type is used to store arbitrary text data that can be used for various purposes, such as SPF, DKIM, DMARC, etc1. The administrator does not need this record type because it is not related to the web server functionality.
? SRV: This record type is used to specify the location and port number of a service that runs on a domain or a subdomain1. The administrator does not need this record type because the web servers use the standard HTTP port 80, which does not require an SRV record.
References: 1: DNS Record Types – CompTIA Network+ N10-007 – 1.8 2: NS Record - DNSimple Help 3: DNSSEC - Wikipedia 4: SOA Record - DNSimple Help

NEW QUESTION 6
A Linux administrator is troubleshooting a systemd mount unit file that is not working correctly. The file contains:
[root@system] # cat mydocs.mount [Unit]
Description=Mount point for My Documents drive [Mount]
What=/dev/drv/disk/by-uuid/94afc9b2-ac34-ccff-88ae-297ab3c7ff34 Where=/home/user1/My Documents
Options=defaults Type=xfs
[Install]
WantedBy=multi-user.target

The administrator verifies the drive UUID correct, and user1 confirms the drive should be mounted as My Documents in the home directory. Which of the following can the administrator do to fix the issues with mounting the drive? (Select two).

A. Rename the mount file to home-user1-My\x20Documents.mount.
B. Rename the mount file to home-user1-my-documents.mount.
C. Change the What entry to /dev/drv/disk/by-uuid/94afc9b2\-ac34\-ccff\-88ae\- 297ab3c7ff34.
D. Change the Where entry to Where=/home/user1/my\ documents.
E. Change the Where entry to Where=/home/user1/My\x20Documents.
F. Add quotes to the What and Where entries, such as What="/dev/drv/disk/by- uuid/94afc9b2-ac34-ccff-88ae-297ab3c7ff34" and Where="/home/user1/My Documents".

Answer: AE

Explanation:
The mount unit file name and the Where entry must be escaped to handle spaces in the path.ReferencesThe mount unit file name must be named after the mount point directory, with spaces replaced by \x20. See How to escape spaces in systemd unit files? and systemd.mount.The Where entry must use \x20 to escape spaces in the path. See systemd.mount and The workaround is to use /usr/bin/env followed by the path in quotes..

NEW QUESTION 7
A cloud engineer needs to block the IP address 192.168.10.50 from accessing a Linux server. Which of the following commands will achieve this goal?

A. iptables -F INPUT -j 192.168.10.50 -m DROP
B. iptables -A INPUT -s 192.168.10.30 -j DROP
C. iptables -i INPUT --ipv4 192.168.10.50 -z DROP
D. iptables -j INPUT 192.168.10.50 -p DROP

Answer: B

Explanation:
The correct command to block the IP address 192.168.10.50 from accessing a Linux server is iptables -A INPUT -s 192.168.10.50 -j DROP. This command appends a rule to the INPUT chain that matches the source address 192.168.10.50 and jumps to the DROP target, which discards the packet. The other commands are incorrect because they either have invalid syntax, wrong parameters, or wrong order of arguments. References:
CompTIA Linux+ Study Guide, Fourth Edition, page 457-458.

NEW QUESTION 8
A systems technician is working on deploying several microservices to various RPM-based systems, some of which could run up to two hours. Which of the following commands will allow the technician to execute those services and continue deploying other microservices within the same terminal section?

A. gedit & disown
B. kill 9 %1
C. fg %1
D. bg %1 job name

Answer: D

Explanation:
The command that will allow the technician to execute the services and continue deploying other microservices within the same terminal session is bg %1 job name. This command will send the job with ID 1 and name job name to the background, where it will run without occupying the terminal. The other options are incorrect because:
? gedit & disown will launch a graphical text editor in the background and detach it from the terminal, but it will not execute any service.
? kill 9 %1 will terminate the job with ID 1 using a SIGKILL signal, which cannot be ignored or handled by the process.
? fg %1 will bring the job with ID 1 to the foreground, where it will occupy the terminal until it finishes or is stopped. References: CompTIA Linux+ Study Guide, Fourth Edition, page 181-182.

NEW QUESTION 9
Some servers in an organization have been compromised. Users are unable to access to the organization's web page and other services. While reviewing the system log, a systems administrator notices messages from the kernel regarding firewall rules:

```
Oct 20 03:45:50 hostnane kernel: iptables denied: IN=eth0 OUT=
MAC=xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx SRC=x.x.x.x DST=x.x.x.x LEN=1059 TOS=0x00
PREC=0x00 TTL=115 ID=31368 DF PROTO=TCP
SPT=17992 DPT=80 WINDOW=16477 RES=0x00 ACK PSH URGP=0
Oct 20 03:46:02 hostname kernel: iptables denied: IN=eth0 OUT=
MAC=xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx SRC=x.x.x.x DST=x.x.x.x LEN=52 TOS=0x00
PREC=0x00 TTL=52 ID=763 DF PROTO=TCP SPT=20229 DPT=22 WINDOW=15598 RES=0x00 ACK URGP=0
Oct 20 03:46:14 hostname kernel: iptables denied: IN=eth0 OUT=
MAC=xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx SRC=x.x.x.x DST=x.x.x.x LEN=324 TOS=0x00
PREC=0x00 TTL=49 ID=64245 PROTO=TCP SPT=47237 DPT=80 WINDOW=470 RES=0x00 ACK PSH URGP=0
Oct 20 03:46:26 hostname kernel: iptables denied: IN=eth0 OUT=
MAC=xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx SRC=x.x.x.x DST=x.x.x.x LEN=52 TOS=0x00
PREC=0x00 TTL=45 ID=2010 PROTO=TCP SPT=48322 DPT=80 WINDOW=380 RES=0x00 ACK URGP=0
```

Which of the following commands will remediate and help resolve the issue?

A.

```
IPtables -A FORWARD -i eth0 -p tcp --dport 80 -j ACCEPT
IPtables -A FORWARD -i eth0 -p tcp --dport 22 -j ACCEPT
```

B.

```
IPtables -A INPUT -i eth0 -p tcp --dport 80 -j ACCEPT
IPtables -A INPUT -i eth0 -p tcp --dport 22 -j ACCEPT
```

C.

```
IPtables -A INPUT -i eth0 -p tcp --sport 80 -j ACCEPT
IPtables -A INPUT -i eth0 -p tcp --sport 22 -j ACCEPT
```

D.

```
IPtables -A INPUT -i eth0 -p tcp --dport :80 -j ACCEPT
IPtables -A INPUT -i eth0 -p tcp --dport :22 -j ACCEPT
```

Answer: A

Explanation:
The command iptables -F will remediate and help resolve the issue. The issue is caused by the firewall rules that block the access to the organization's web page and other services. The output of dmesg | grep firewall shows that the kernel has dropped packets from the source IP address 192.168.1.100 to the destination port 80, which is the default port for HTTP. The command iptables -F will flush all the firewall rules and allow the traffic to pass through. This command will resolve the issue and restore the access to the web page and other services. The other options are incorrect because they either do not affect the firewall rules (ip route flush or ip addr flush) or do not exist (iptables - R). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 18: Securing Linux Systems, page 543.

NEW QUESTION 10
A cloud engineer is installing packages during VM provisioning. Which of the following should the engineer use to accomplish this task?

A. Cloud-init
B. Bash
C. Docker
D. Sidecar

Answer: A

Explanation:
The cloud engineer should use cloud-init to install packages during VM provisioning. Cloud-init is a tool that allows the customization of cloud instances at boot time. Cloud-init can perform various tasks, such as setting the hostname, creating users, installing packages, configuring network, and running scripts. Cloud-init can work with different cloud platforms and Linux distributions. This is the correct tool to accomplish the task. The other options are incorrect because they are either not suitable for cloud provisioning (Bash or Docker) or not a tool but a design pattern (Sidecar). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 19: Managing Cloud and Virtualization Technologies, page 563.

NEW QUESTION 10
To harden one of the servers, an administrator needs to remove the possibility of remote administrative login via the SSH service. Which of the following should the administrator do?

A. Add the line DenyUsers root to the /etc/hosts.deny file.
B. Set PermitRootLogin to no in the /etc/ssh/sshd_config file.
C. Add the line account required pam_nologi
D. so to the /etc/pam.d/sshd file.
E. Set PubKeyAuthentication to no in the /etc/ssh/ssh_config file.

Answer: B

Explanation:
The administrator should set PermitRootLogin to no in the /etc/ssh/sshd_config file to remove the possibility of remote administrative login via the SSH service. The PermitRootLogin directive controls whether the root user can log in using SSH. Setting it to no will deny any remote login attempts by the root user. This will harden the server and prevent unauthorized access. The administrator should also restart the sshd service after making the change. The other options are incorrect because they either do not affect the SSH service (/etc/hosts.deny or /etc/pam.d/sshd) or do not prevent remote administrative login (PubKeyAuthentication). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 13: Managing Network Services, page 413.

NEW QUESTION 13
A systems administrator frequently connects to a remote host via SSH and a non-standard port. The systems administrator would like to avoid passing the port parameter on the command line every time. Which of the following files can be used to set a different port
value for that host?

A. /etc/ssh/sshd_config
B. /etc/ssh/moduli
C. ~/.ssh/config
D. ~/.ssh/authorized_keys

Answer: C

Explanation:
The ~/.ssh/config file can be used to set various options for SSH connections, including the port number, for specific hosts or groups of hosts. This file is located in the user's home directory and affects only the current user. The /etc/ssh/sshd_config file is used to configure the SSH server daemon, not the client. The /etc/ssh/moduli file contains parameters for Diffie-Hellman key exchange, not port settings.

The ~/.ssh/authorized_keys file contains public keys for authentication, not port settings. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 12: Secure Shell (SSH), page 414.

NEW QUESTION 14
A systems administrator needs to clone the partition /dev/sdc1 to /dev/sdd1. Which of the following commands will accomplish this task?

A. tar -cvzf /dev/sdd1 /dev/sdc1
B. rsync /dev/sdc1 /dev/sdd1
C. dd if=/dev/sdc1 of=/dev/sdd1
D. scp /dev/sdc1 /dev/sdd1

Answer: C

Explanation:
The command dd if=/dev/sdc1 of=/dev/sdd1 copies the data from the input file (if) /dev/sdc1 to the output file (of) /dev/sdd1, byte by byte. This is the correct way to clone a partition. The other options are incorrect because they either compress the data (tar -cvzf), synchronize the files (rsync), or copy the files over a network (scp), which are not the same as cloning a partition. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 10: Managing Storage, page 321.

NEW QUESTION 16
An administrator runs ping comptia.org. The result of the command is:
ping: comptia.org: Name or service not known
Which of the following files should the administrator verify?

A. /etc/ethers
B. /etc/services
C. /etc/resolv.conf
D. /etc/sysctl.conf

Answer: C

Explanation:
The best file to verify when the ping command returns the error “Name or service not known” is C. /etc/resolv.conf. This file contains the configuration for the DNS resolver, which is responsible for translating domain names into IP addresses. If this file is missing, corrupted, or has incorrect entries, the ping command will not be able to resolve the domain name and will fail with the error. To fix this issue, the administrator should check that the file exists, has proper permissions, and has valid nameserver entries. For example, a typical /etc/resolv.conf file may look like this:
nameserver 8.8.8.8 nameserver 8.8.4.4
These are the IP addresses of Google’s public DNS servers, which can be used as a fallback option if the default DNS servers are not working.

NEW QUESTION 21
A systems administrator requires that all files that are created by the user named web have read-only permissions by the owner. Which of the following commands will satisfy this requirement?

A. chown web:web /home/web
B. chmod -R 400 /home/web
C. echo "umask 377" >> /home/web/.bashrc
D. setfacl read /home/web

Answer: C

Explanation:
The command that will satisfy the requirement of having all files that are created by the user named web have read-only permissions by the owner is echo “umask 377” >> /home/web/.bashrc. This command will append the umask 377 command to the end of the .bashrc file in the web user’s home directory. The .bashrc file is a shell script that is executed whenever a new interactive shell session is started by the user. The umask command sets the file mode creation mask, which determines the default permissions for newly created files or directories by subtracting from the maximum permissions (666 for files and 777 for directories). The umask 377 command means that the user does not want to give any permissions to the group or others (3 = 000 in binary), and only wants to give read permission to the owner (7 - 3 = 4 = 100 in binary). Therefore, any new file created by the web user will have read-only permission by the owner (400) and no permission for anyone else. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 8: Managing Users and Groups; Umask Command in Linux | Linuxize

NEW QUESTION 22
A user is unable to remotely log on to a server using the server name server1 and port 22.
The Linux engineer troubleshoots the issue and gathers the following information: Which of the following is most likely causing the issue?

A. server 1 is not in the DNS.
B. sshd is running on a non-standard port.
C. sshd is not an active service.
D. serverl is using an incorrect IP address.

Answer: B

Explanation:
The sshd is the Secure Shell Daemon, which is a service that allows remote login to a Linux system using the SSH protocol. The output shows that the sshd is running on port 2222, which is a non-standard port for SSH. The default port for SSH is 22, which is what the user is trying to use. Therefore, the statement B is most likely causing the issue. The statements A, C, and D are incorrect because they do not explain why the user cannot log on using port 22. References: [How to Change SSH Port in Linux]

NEW QUESTION 24
A Linux administrator is installing a web server and needs to check whether web traffic has already been allowed through the firewall. Which of the following commands should the administrator use to accomplish this task?

A. firewalld query-service-http
B. firewall-cmd --check-service http
C. firewall-cmd --query-service http
D. firewalld --check-service http

Answer: C

Explanation:
The command firewall-cmd --query-service http will accomplish the task of checking whether web traffic has already been allowed through the firewall. The firewall- cmd command is a tool for managing firewalld, which is a firewall service that provides dynamic and persistent network security on Linux systems. The firewalld uses zones and services to define the rules and policies for the network traffic. The zones are logical groups of network interfaces and sources that have the same level of trust and security. The services are predefined sets of ports and protocols that are associated with certain applications or functions. The --query-service http option queries whether a service is enabled in a zone. The http is the name of the service that the command should check.
The http service represents the web traffic that uses the port 80 and the TCP protocol. The command firewall-cmd --query-service http will check whether the http service is enabled in the default zone, which is usually the public zone. The command will return yes if the web traffic has already been allowed through the firewall, or no if the web traffic has not been allowed through the firewall. This is the correct command to use to accomplish the task.
The other options are incorrect because they either do not exist (firewalld query-service- http or firewalld --check-service http) or do not query the service (firewall-cmd --check-
service http instead of firewall-cmd --query-service http). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 12: Managing Network Connections, page 392.

NEW QUESTION 27
A systems administrator wants to be sure the sudo rules just added to /etc/sudoers are valid. Which of the following commands can be used for this task?

A. visudo -c
B. test -f /etc/sudoers
C. sudo vi check
D. cat /etc/sudoers | tee test

Answer: A

Explanation:
The command visudo -c can be used to check the validity of the sudo rules in the /etc/sudoers file. The visudo command is a tool for editing and validating the /etc/sudoers file, which defines the rules for the sudo command. The -c option checks the syntax and logic of the file and reports any errors or warnings. The command visudo - c will verify the sudo rules and help the administrator avoid any mistakes. This is the correct command to use for this task. The other options are incorrect because they either do not check the validity of the file (test, sudo, or cat) or do not exist (sudo vi check). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 18: Securing Linux Systems, page 546.

NEW QUESTION 31
A Linux systems administrator is troubleshooting an I/O latency on a single CPU server. The administrator runs a top command and receives the following output:
%Cpu(s): 0.2 us, 33.1 sy, 0.0 ni, 0.0 id, 52.4 wa, 0.0 hi, 0.2 si, 0.0 st
Which of the following is correct based on the output received from the exe-cuted command?

A. The server's CPU is taking too long to process users' requests.
B. The server's CPU shows a high idle-time value.
C. The server's CPU is spending too much time waiting for data inputs.
D. The server's CPU value for the time spent on system processes is low.

Answer: C

Explanation:
The server’s CPU is spending too much time waiting for data inputs. This can be inferred from the output of the top command, which shows the percentage of CPU time spent in different states. The wa state stands for wait, and it indicates that the CPU is idle while waiting for an I/O operation to complete. In this case, the wa state is 52.4%, which means that more than half of the CPU time is wasted on waiting for data inputs. This can cause a high I/O latency and affect the performance of the server.
The other options are not correct based on the output received from the executed command. The server’s CPU is not taking too long to process users’ requests, because the us state, which stands for user, is only 0.2%, which means that the CPU is barely used by user processes. The server’s CPU does not show a high idle-time value, because the id state, which stands for idle, is 0.0%, which means that the CPU is not idle at all. The server’s CPU value for the time spent on system processes is not low, because the sy state, which stands for system, is 33.1%, which means that the CPU is heavily used by system processes.
References: How to Use the Linux top Command (and Understand Its Output); [Understanding Linux CPU Load - when should you be worried?]

NEW QUESTION 33
A User on a Linux workstation needs to remotely start an application on a Linux server and then forward the graphical display of that application back to the Linux workstation. Which of the following would enable the user to perform this action?

A. ssh -X user@server application
B. ssh -y user@server application
C. ssh user@server application
D. ssh -D user@server application

Answer: A

Explanation:
The ssh -X option enables X11 forwarding, which allows the user to run graphical applications on the remote server and display them on the local workstation. The user needs to specify the username, the server address, and the application name after the ssh -X command. The remote server also needs to have X11Forwarding enabled and xauth installed for this to work. References:
? The web search result 8 explains how to run a GUI application through SSH by configuring both the SSH client and server.
? The web search result 6 provides a detailed answer on how to forward X over SSH to run graphics applications remotely, with examples and troubleshooting tips.
? The CompTIA Linux+ Certification Exam Objectives mention that the candidate should be able to “use SSH for remote access and management” as part of the System Operation and Maintenance domain1.

NEW QUESTION 36
A systems administrator is gathering information about a file type and the contents of a file. Which of the following commands should the administrator use to accomplish this task?

A. file filename
B. touch filename
C. grep filename
D. lsof filename

Answer: A

Explanation:
The file command is used to determine the type of a file by examining its contents. It can recognize many different formats, such as text, binary, executable, compressed, image, audio, video, etc. It can also display some additional information about the file, such as encoding, size, dimensions, etc12
References: 1: file(1) - Linux manual page 2: How to use the file command in Linux

NEW QUESTION 38
An engineer needs to insert a character at the end of the current line in the vi text editor. Which of the following will allow the engineer to complete this task?

A. p
B. r
C. bb
D. A
E. i

Answer: D

Explanation:
The vi text editor is a popular and powerful tool for editing text files on Linux systems. The vi editor has two modes: command mode and insert mode. In command mode, the user can issue commands to manipulate the text, such as moving the cursor, deleting, copying, pasting, searching, replacing, and saving. In insert mode, the user can type text into the file. To switch from command mode to insert mode, the user can press various keys, such as i, a, o, I, A, or O. To switch from insert mode to command mode, the user can press the Esc key.
To insert a character at the end of the current line in the vi editor, the user can press the A key in command mode. This will move the cursor to the end of the line and switch to insert mode. Then, the user can type the desired character and press Esc to return to command mode. The statement D is correct.
The statements A, B, C, and E are incorrect because they do not perform the desired task. The p key in command mode will paste the previously copied or deleted text after the cursor. The r key in command mode will replace the character under the cursor with another character. The bb key in command mode will move the cursor back two words. The i key in command mode will switch to insert mode before the cursor. References: [How to Use vi Text Editor in Linux]

NEW QUESTION 41
Which of the following can be used as a secure way to access a remote termi-nal?

A. TFTP
B. SSH
C. SCP
D. SFTP

Answer: B

Explanation:
SSH, or Secure Shell, is a protocol that allows you to access a remote terminal or virtual machine securely over an encrypted connection. You can use SSH to run commands, transfer files, or tunnel network traffic on a remote system. To use SSH, you need an SSH client program on your local system and an SSH server program on the remote system. You also need to authenticate yourself using a username and password or a public/private key pair. SSH is widely used by system administrators, developers, and engineers to remotely manage Linux servers and other devices.
The other options are not correct answers. TFTP, or Trivial File Transfer Protocol, is a simple protocol that allows you to transfer files between systems, but it does not provide any security or encryption features. SCP, or Secure Copy Protocol, is a protocol that uses SSH to securely copy files between systems, but it does not provide a remote terminal access. FTP, or File Transfer Protocol, is another protocol that allows you to transfer files between systems, but it also does not provide any security or encryption features.

NEW QUESTION 46
A developer has been unable to remove a particular data folder that a team no longer uses. The developer escalated the issue to the systems administrator. The following output was received:

```
# rmdir data/
rmdir: failed to remove 'data/': Operation not permitted
# rm -rf data/
rm: cannot remove 'data': Operation not permitted
# mv data/ mydata
mv: cannot move 'data/' to 'mydata': Operation not permitted
# cd data/
# cat > test.txt
bash: test.txt: Permission denied
```

Which of the following commands can be used to resolve this issue?

A. chgrp -R 755 data/
B. chmod -R 777 data/

C. chattr -R -i data/
D. chown -R data/

Answer: C

Explanation:
The command that can be used to resolve the issue of being unable to remove a particular data folder is chattr -R -i data/. This command will use the chattr utility to change file attributes on a Linux file system. The -R option means that chattr will recursively change attributes of directories and their contents. The -i option means that chattr will remove (unset) the immutable attribute from files or directories. When a file or directory has the immutable attribute set, it cannot be modified, deleted, or renamed.
The other options are not correct commands for resolving this issue. The chgrp -R 755 data/ command will change the group ownership of data/ and its contents recursively to 755, which is not a valid group name. The chgrp command is used to change group ownership of files or directories. The chmod -R 777 data/ command will change the file mode bits of data/ and its contents recursively to 777, which means that everyone can read, write, and execute them. However, this will not remove the immutable attribute, which prevents deletion or modification regardless of permissions. The chmod command is used to change file mode bits of files or directories. The chown -R data/ command is incomplete and will produce an error. The chown command is used to change the user and/or group ownership of files or directories, but it requires at least one argument besides the file name. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 7: Managing Disk Storage; chattr(1) - Linux manual page; chgrp(1) - Linux manual page; chmod(1) - Linux manual page; chown(1) - Linux manual page

NEW QUESTION 48
A Linux systems administrator receives reports from various users that an application hosted on a server has stopped responding at similar times for several days in a row. The administrator logs in to the system and obtains the following output:
Output 1:

```
[Tue Aug 31 16:36:42 2021] OOM: Kill process 43805 (java) score 249 or sacrifice child
[Tue Aug 31 16:36:42 2021] killed process 43805 (java) total-vm: 4446352kB, anon-rss: 4053140kB, file-rss: 68kB
```

Output 2:

```
Linux 3.10.0-328.13.1.x86_64 #1 (hostname) 31/08/2021 _x86_64_ (8 CPU)
16:00:01 PM     CPU    %user  %nice   %system   %iowait   %steal       %idle
16:10:01 PM     all    17.58   0.00      9.36      0.00     0.00       73.06
16:20:01 PM     all    22.34   0.00     11.75      0.00     0.00       65.91
16:30:01 PM     all    25.49   0.00     11.69      0.00        0       62.82
```

Output 3:

```
$ free -m
              total        used        free      shared  buff/cache   available
Mem:          16704       15026         174          92         619         793
Swap:             0           0           0
```

Which of the following should the administrator do to provide the BEST solution for the reported issue?

A. Configure memory allocation policies during business hours and prevent the Java process from going into a zombie state while the server is idle.
B. Configure a different nice value for the Java process to allow for more users and prevent the Java process from restarting during business hours.
C. Configure more CPU cores to allow for the server to allocate more processing and prevent the Java process from consuming all of the available resources.
D. Configure the swap space to allow for spikes in usage during peak hours and prevent the Java process from stopping due to a lack of memory.

Answer: D

Explanation:
Based on the output of the image sent by the user, the system requires more swap space to allow for spikes in usage during peak hours and prevent the Java process from stopping due to a lack of memory. The output shows that there is only 0 MB of swap space available on the system, which means that there is no room for swapping out memory pages when physical memory is full or low. The output also shows that there is only 793 MB of available memory on the system, which may not be enough to handle high- demand applications such as Java. This may cause Java to stop working due to insufficient memory or trigger an OutOfMemoryError exception. Configuring more swap space on the system would help to alleviate this issue by providing more virtual memory for applications and improving performance. Configuring memory allocation policies during business hours will not help to solve this issue, as it will not increase the amount of available memory or swap space on the system. Configuring a different nice value for Java process will not help to solve this issue, as it will only affect its scheduling priority, not its memory consumption or allocation. Configuring more CPU cores will not help to solve this issue, as it will only increase processing power, not memory capacity or availability. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 15: Managing Memory and Process Execution, page 468.

NEW QUESTION 52
A Linux systems administrator is configuring a new filesystem that needs the capability to be mounted persistently across reboots. Which of the following commands will accomplish this task? (Choose two.)

A. df -h /data
B. mkfs.ext4 /dev/sdc1
C. fsck /dev/sdc1
D. fdisk -l /dev/sdc1
E. echo "/data /dev/sdc1 ext4 defaults 0 0" >> /etc/fstab
F. echo "/dev/sdc1 /data ext4 defaults 0 0" >> /etc/fstab

Answer: BF

Explanation:
"modify the /etc/fstab text file to automatically mount the new partition by opening it in an editor and adding the following line:
/dev/ xxx 1 /data ext4 defaults 1 2
where xxx is the device name of the storage device"
https://learning.oreilly.com/library/view/mastering-linux-system/9781119794455/b01.xhtml To configure a new filesystem that needs the capability to be mounted persistently across reboots, two commands are needed: mkfs.ext4 /dev/sdc1 and echo “/dev/sdc1 /data ext4 defaults 0 0” >> /etc/fstab. The first command creates an ext4 filesystem on the device /dev/sdc1, which is the partition that will be used for the new filesystem. The second command appends a line to the

/etc/fstab file, which is the configuration file that controls persistent mount points of filesystems. The line specifies the device name, the mount point (/data), the filesystem type (ext4), the mount options (defaults), and the dump and pass values (0 0). The other commands are incorrect because they either do not create or configure a filesystem, or they have wrong syntax or arguments. References: CompTIA Linux+ Study Guide, Fourth Edition, page 409-410, 414-415.

NEW QUESTION 56
A Linux administrator needs to create an image named sda.img from the sda disk and store it in the /tmp directory. Which of the following commands should be used to accomplish this task?

A. dd of=/dev/sda if=/tmp/sda.img
B. dd if=/dev/sda of=/tmp/sda.img
C. dd --if=/dev/sda --of=/tmp/sda.img
D. dd --of=/dev/sda --if=/tmp/sda.img

Answer: B

Explanation:
The command dd if=/dev/sda of=/tmp/sda.img should be used to create an image named sda.img from the sda disk and store it in the /tmp directory. The dd command is a tool for copying and converting data on Linux systems. The if option specifies the input file or device, in this case /dev/sda, which is the disk device. The of option specifies the output file or device, in this case /tmp/sda.img, which is the image file. The command dd if=/dev/sda of=/tmp/sda.img will copy the entire disk data from /dev/sda to /tmp/sda.img and create an image file. This is the correct command to use to accomplish the task. The other options are incorrect because they either use the wrong options (--if or --of instead of if or of) or swap the input and output (dd of=/dev/sda if=/tmp/sda.img or dd --of=/dev/sda --if=/tmp/sda.img). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 10: Managing Storage, page 323.

NEW QUESTION 59
Users in the human resources department are trying to access files in a newly created directory. Which of the following commands will allow the users access to the files?

A. chattr
B. chgrp
C. chage
D. chcon

Answer: B

Explanation:
The chgrp command is used to change the group ownership of files and directories. By using this command, the administrator can assign the files in the newly created directory to the human resources group, which will allow the users in that group to access them. The other commands are not relevant for this task. For example:
? chattr is used to change the file attributes, such as making them immutable or append-only1.
? chage is used to change the password expiration information for a user account2.
? chcon is used to change the security context of files and directories, which is related to SELinux3.
References:
? The CompTIA Linux+ Certification Exam Objectives mention that the candidate should be able to “manage file and directory ownership and permissions” as part of the Hardware and System Configuration domain4.
? The web search result 2 explains how to use the chgrp command with examples.
? The web search result 3 compares the chmod and chgrp commands and their effects on file permissions.

NEW QUESTION 61
Which of the following tools is commonly used for creating CI/CD pipelines?

A. Chef
B. Puppet
C. Jenkins
D. Ansible

Answer: C

Explanation:
The tool that is commonly used for creating CI/CD pipelines is Jenkins. Jenkins is an open-source automation server that enables continuous integration and continuous delivery (CI/CD) of software projects. Jenkins allows developers to build, test, and deploy code changes automatically and frequently using various plugins and integrations. Jenkins also supports distributed builds, parallel execution, pipelines as code, and real-time feedback. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 19: Managing Source Code; Jenkins

NEW QUESTION 66
A newly created container has been unable to start properly, and a Linux administrator is analyzing the cause of the failure. Which of the following will allow the administrator to determine the FIRST command that is executed inside the container right after it starts?

A. docker export <container_id>
B. docker info <container_id>
C. docker start <container_id>
D. docker inspect <container_id>

Answer: D

Explanation:
The command that will allow the administrator to determine the first command that is executed inside the container right after it starts is docker inspect <container_id>. This command will display detailed information about the container, including its configuration, state, network settings, mounts, and logs. One of the configuration fields is “Entrypoint”, which shows the command that is executed when the container is run. The entrypoint can be specified in the Dockerfile or overridden at runtime using the --entrypoint option.

The other options are not correct commands for determining the first command that is executed inside the container. The docker export <container_id> command will export the contents of the container's filesystem as a tar archive to STDOUT. This will not show the entrypoint of the container, but only its files. The docker info <container_id> command is invalid because docker info does not take any arguments. It shows system-wide information about Docker, such as the number of containers, images, volumes, networks, and storage drivers. The docker start <container_id> command will start a stopped container and attach its STDOUT and STDERR to the terminal. This will not show the entrypoint of the container, but only its output. References: docker inspect | Docker Docs; docker export | Docker Docs; docker info | Docker Docs; docker start | Docker Docs

NEW QUESTION 67
A systems administrator is tasked with preventing logins from accounts other than root, while the file /etc/nologin exists. Which of the following PAM modules will accomplish this task?

A. pam_login.so
B. pam_access.so
C. pam_logindef.so
D. pam_nologin.so

Answer: D

Explanation:
The PAM module pam_nologin.so will prevent logins from accounts other than root, while the file /etc/nologin exists. This module checks for the existence of the file /etc/nologin and displays its contents to the user before denying access. The root user is exempt from this check and can still log in. This is the correct module to accomplish the task. The other options are incorrect because they are either non-existent modules (pam_login.so or pam_logindef.so) or do not perform the required function (pam_access.so controls access based on host, user, or time). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 15: Managing Users and Groups, page 471.

NEW QUESTION 68
An administrator installed an application from source into /opt/operations1/ and has received numerous reports that users are not able to access the application without having to use the full path /opt/operations1/bin/*. Which of the following commands should be used to resolve this issue?

A. echo 'export PATH=$PATH:/opt/operations1/bin' >> /etc/profile
B. echo 'export PATH=/opt/operations1/bin' >> /etc/profile
C. echo 'export PATH=$PATH/opt/operations1/bin' >> /etc/profile
D. echo 'export $PATH:/opt/operations1/bin' >> /etc/profile

Answer: A

Explanation:
The command echo 'export PATH=$PATH:/opt/operations1/bin' >>
/etc/profile should be used to resolve the issue of users not being able to access the application without using the full path. The echo command prints the given string to the standard output. The export command sets an environment variable and makes it available to all child processes. The PATH variable contains a list of directories where the shell looks for executable files. The $PATH expands to the current value of the PATH variable.
The : separates the directories in the list. The /opt/operations1/bin is the directory where the application is installed. The >> operator appends the output to the end of the file.
The /etc/profile file is a configuration file that is executed when a user logs in. The command echo 'export PATH=$PATH:/opt/operations1/bin' >> /etc/profile will add the /opt/operations1/bin directory to the PATH variable for all users and allow them to access the application without using the full path. This is the correct command to use to resolve the issue. The other options are incorrect because they either overwrite
the PATH variable (echo 'export PATH=/opt/operations1/bin' >> /etc/profile) or do not use the correct syntax (echo 'export PATH=$PATH/opt/operations1/bin' >> /etc/profile or echo 'export $PATH:/opt/operations1/bin' >> /etc/profile). References: CompTIA Linux+ (XK0- 005) Certification Study Guide, Chapter 9: Working with the Linux Shell, page 295.

NEW QUESTION 72
Which of the following actions are considered good security practices when hardening a Linux server? (Select two).

A. Renaming the root account to something else
B. Removing unnecessary packages
C. Changing the default shell to /bin/csh
D. Disabling public key authentication
E. Disabling the SSH root login possibility
F. Changing the permissions on the root filesystem to 600

Answer: BE

Explanation:
Some good security practices when hardening a Linux server are:
? Removing unnecessary packages (B) to reduce the attack surface and eliminate potential vulnerabilities
? Disabling the SSH root login possibility (E) to prevent unauthorized access and brute-force attacks on the root account References:
? [CompTIA Linux+ Study Guide], Chapter 9: Securing Linux, Section: Hardening Linux
? [How to Harden Your Linux Server]

NEW QUESTION 74
An administrator needs to make some changes in the IaC declaration templates. Which of the following commands would maintain version control?

A. git clone https://github.com/comptia/linux+-.git git push origin
B. git clone https://qithub.com/comptia/linux+-.git git fetch New-Branch
C. git clone https://github.com/comptia/linux+-.git git status
D. git clone https://github.com/comptia/linuxt+-.git git checkout -b <new-branch>

Answer: D

Explanation:
The command that will maintain version control while making some changes in the IaC declaration templates is git checkout -b <new-branch>. This command uses the git tool, which is a distributed version control system that tracks changes in source code and enables collaboration among developers. The checkout option switches to a different branch in the git repository, where a branch is a pointer to a specific commit in the history. The -b option creates a new branch with the given name, and switches to it. This way, the administrator can make changes in the new branch without affecting the main branch, and later merge them if needed.
The other options are not correct commands for maintaining version control while making some changes in the IaC declaration templates. The git clone https://github.com/comptia/linux±.git command will clone an existing repository from a remote URL to a local directory, but it will not create a new branch for making changes. The git push origin command will push the local changes to a remote repository named origin, but it will not create a new branch for making changes. The git fetch New-Branch command will fetch updates from a remote branch named New-Branch, but it will not create a new branch for making changes.
References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 19: Managing Source Code; Git - Basic Branching and Merging

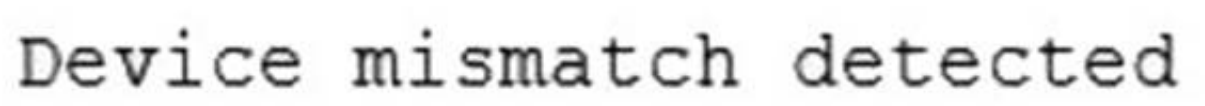
NEW QUESTION 75
A systems administrator checked out the code from the repository, created a new branch, made changes to the code, and then updated the main branch. The systems administrator wants to ensure that the Terraform state files do not appear in the main branch. Which of following should the administrator use to meet this requirement?

A. clone
B. gitxgnore
C. get
D. .ssh

Answer: B

Explanation:
To prevent certain files from being tracked by Git, the administrator can use a .gitignore file (B) in the repository. The .gitignore file can specify patterns of files or directories that Git should ignore. This way, the Terraform state files will not appear in the main branch or any other branch. The other commands are not related to this requirement. References:
? [CompTIA Linux+ Study Guide], Chapter 10: Working with Git, Section: Ignoring Files with .gitignore
? [How to Use .gitignore File]

NEW QUESTION 76
A Linux administrator cloned an existing Linux server and built a new server from that clone. The administrator encountered the following error after booting the cloned server:



The administrator performed the commands listed below to further troubleshoot and mount the missing filesystem:

```
#ls -al /dev/disk/by-uuid/
total 0
drwxr-xr-x 2 root 220 Jul 08:59 .
drwxr-xr-x 2 root 160 Jul 08:59 ..
lrwxrwxrwx 1 root 26 Jul 11:10 2251a54-6c14-9187-df8629373 -> ../../sdb
lrwxrwxrwx 1 root 26 Jul 11:10 4211c54-2a13-7291-bd8629373 -> ../../sdc
lrwxrwxrwx 1 root 26 Jul 11:10 3451b54-6d10-3561-ad8629373 -> ../../sdd
```

Which of the following should administrator use to resolve the device mismatch issue and mount the disk?

A. mount disk by device-id
B. fsck -A
C. mount disk by-label
D. mount disk by-blkid

Answer: A

Explanation:
The administrator should use the command mount disk by device-id to resolve the device mismatch issue and mount the disk. The issue is caused by the cloned server having a different device name for the disk than the original server. The output of blkid shows that the disk has the device name /dev/sdb1 on the cloned server, but the output of cat /etc/fstab shows that the disk is expected to have the device name /dev/sda1. The command mount disk by device-id will mount the disk by using its unique identifier (UUID) instead of its device name. The UUID can be obtained from the output of blkid or lsblk -f. The command will mount the disk to the specified mount point (/data) and resolve the issue. The other options are incorrect because they either do not mount the disk (fsck -A), do not use the correct identifier (mount disk by-label or mount disk by-blkid), or do not exist (mount disk by-blkid). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 10: Managing Storage, pages 318-319.

NEW QUESTION 77
A systems administrator needs to check if the service systemd-resolved.service is running without any errors. Which of the following commands will show this information?

A. systemct1 status systemd-resolved.service
B. systemct1 enable systemd-resolved.service
C. systemct1 mask systemd-resolved.service
D. systemct1 show systemd-resolved.service

Answer: A

Explanation:
The command systemct1 status systemd-resolved.service will show the information about the service systemd-resolved.service. The systemct1 command is a tool for managing system services and units. The status option displays the current status of a unit, such as active, inactive, or failed. The output also shows the unit description, loaded configuration, process ID, memory usage, and recent log messages. This command will show if the service systemd-resolved.service is running without any errors. This is the
correct command to use to accomplish the task. The other options are incorrect because they either perform different actions (enable, mask, or show) or do not show the status of the service (systemct1 show systemd-resolved.service only shows the properties of the service, not the status). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 14: Managing Processes and Scheduling Tasks, page 427.

NEW QUESTION 81
A systems administrator is compiling a report containing information about processes that are listening on the network ports of a Linux server. Which of the following commands will allow the administrator to obtain the needed information?

A. ss -pint
B. tcpdump -nL
C. netstat -pn
D. lsof -It

Answer: A

Explanation:
The command ss -pint will allow the administrator to obtain the needed information about processes that are listening on the network ports of a Linux server. The ss command is a tool for displaying socket statistics on Linux systems. Sockets are endpoints of network communication that allow processes to exchange data over the network. The ss command can show various information about the sockets, such as the state, address, port, protocol, and process. The -pint option specifies the filters and flags that the ss command should apply. The -p option shows the process name and ID that owns the socket. The -i option shows the internal information about the socket, such as the send and receive queue, the congestion window, and the retransmission timeout. The -
n option shows the numerical address and port, instead of resolving the hostnames and service names. The -t option shows only the TCP sockets, which are the most common type of sockets used for network communication. The command ss -pint will display the socket statistics for the TCP sockets, along with the process name and ID, the numerical address and port, and the internal information. This will allow the administrator to obtain the needed information about processes that are listening on the network ports of a Linux server. This is the correct command to use to obtain the needed information. The other options are incorrect because they either do not show the socket statistics (tcpdump - nL or lsof -It) or do not show the process name and ID (netstat -pn). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 12: Managing Network Connections, page 389.

NEW QUESTION 85
A systems administrator is adding a Linux-based server and removing a Windows-based server from a cloud-based environment. The changes need to be validated before they are applied to the cloud-based environment. Which of the following tools should be used to meet this requirement?

A. Ansible
B. git clone
C. git pull
D. terraform plan

Answer: D

Explanation:
Terraform is a tool for building, changing, and managing infrastructure as code in a cloud- based environment. Terraform uses configuration files to describe the desired state of the infrastructure and applies changes accordingly. Terraform supports various cloud providers, such as AWS, Azure, Google Cloud Platform, and more.
To validate changes before they are applied to the cloud-based environment, the administrator can use the terraform plan command. This command will compare the current state of the infrastructure with the desired state defined in the configuration files and show what actions will be performed to achieve the desired state. This command will not make any changes to the infrastructure but only show a plan of changes. The statement D is correct.
The statements A, B, and C are incorrect because they do not validate changes before they are applied to the cloud-based environment. Ansible is another tool for automating infrastructure management, but it does not have a plan command. Git clone and git pull are commands for working with git repositories, which are used for version control of code. References: [How to Use Terraform to Manage Cloud Infrastructure]

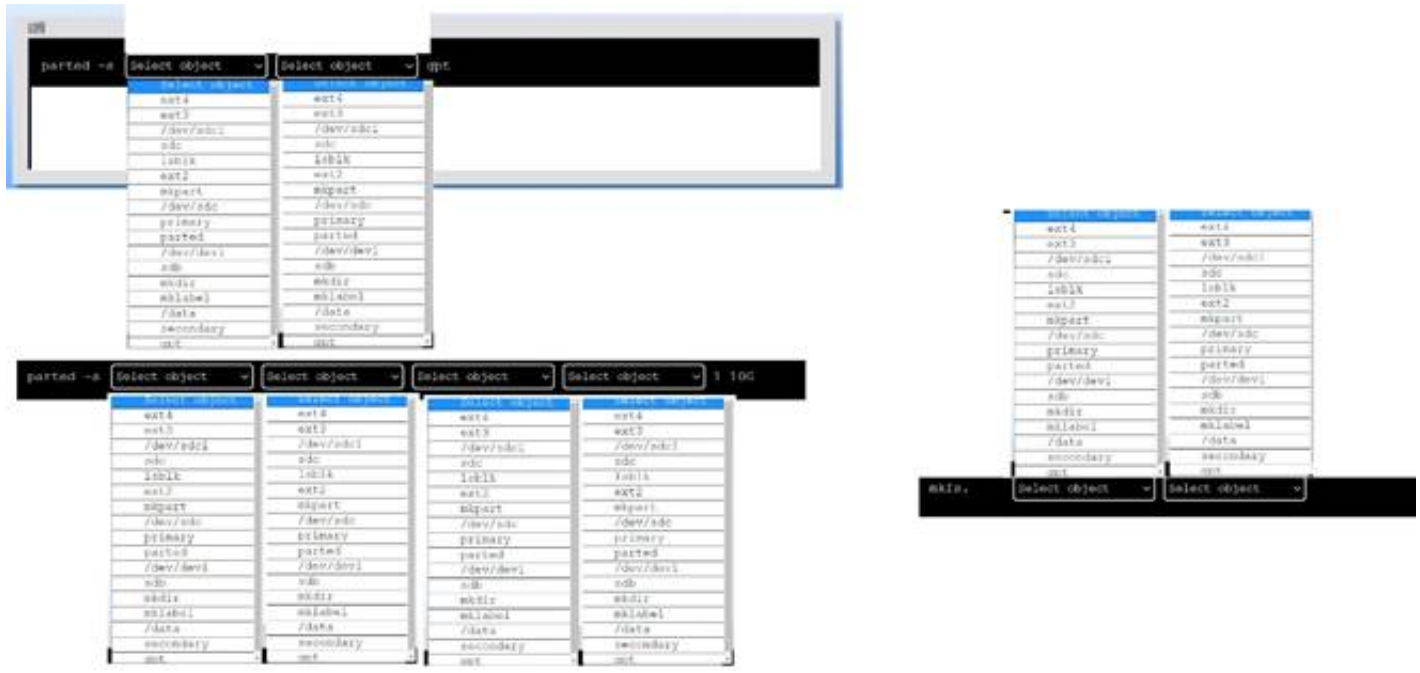
NEW QUESTION 88
A systems administrator is tasked with mounting a USB drive on a system. The USB drive has a single partition, and it has been mapped by the system to the device /dev/sdb. Which of the following commands will mount the USB to /media/usb?

A. mount /dev/sdb1 /media/usb
B. mount /dev/sdb0 /media/usb
C. mount /dev/sdb /media/usb
D. mount -t usb /dev/sdb1 /media/usb

Answer: A

Explanation:
The mount /dev/sdb1 /media/usb command will mount the USB drive to /media/usb. This command will attach the filesystem on the first partition of the USB drive (/dev/sdb1) to the mount point /media/usb, making it accessible to the system. The mount /dev/sdb0 /media/usb command is invalid, as there is no such device as /dev/sdb0. The mount /dev/sdb /media/usb command is incorrect, as it will try to mount the entire USB drive instead of its partition, which may cause errors or data loss. The mount -t usb
/dev/sdb1 /media/usb command is incorrect, as usb is not a valid filesystem type for mount. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 14: Managing Disk Storage, page 455.

NEW QUESTION 90
DRAG DROP
A new drive was recently added to a Linux system. Using the environment and tokens provided, complete the following tasks:
• Create an appropriate device label.
• Format and create an ext4 file system on the new partition. The current working directory is /.



A. Mastered
B. Not Mastered

Answer: A

Explanation:
To create an appropriate device label, format and create an ext4 file system on the new partition, you can use the following commands:
? To create a GPT (GUID Partition Table) label on the new drive /dev/sdc, you can use the parted command with the -s option (for script mode), the device name (/dev/sdc), the mklabel command, and the label type (gpt). The command is:
parted -s /dev/sdc mklabel gpt
? To create a primary partition of 10 GB on the new drive /dev/sdc, you can use the parted command with the -s option, the device name (/dev/sdc), the mkpart command, the partition type (primary), the file system type (ext4), and the start and end points of the partition (1 and 10G). The command is:
parted -s /dev/sdc mkpart primary ext4 1 10G
? To format and create an ext4 file system on the new partition /dev/sdc1, you can use the mkfs command with the file system type (ext4) and the device name (/dev/sdc1). The command is:
mkfs.ext4 /dev/sdc1
You can verify that the new partition and file system have been created by using the lsblk command, which will list all block devices and their properties.

NEW QUESTION 92
A Linux engineer has been notified about the possible deletion of logs from the file
/opt/app/logs. The engineer needs to ensure the log file can only be written into without removing previous entries.

```
# lsattz /opt/app/logs
--------------e---  logs
```

Which of the following commands would be BEST to use to accomplish this task?

A. chattr +a /opt/app/logs
B. chattr +d /opt/app/logs
C. chattr +i /opt/app/logs
D. chattr +c /opt/app/logs

Answer: A

Explanation:
The command chattr +a /opt/app/logs will ensure the log file can only be written into without removing previous entries. The chattr command is a tool for changing file attributes on Linux file systems. The +a option sets the append-only attribute, which means that the file can only be opened in append mode for writing. This prevents the file from being modified, deleted, or renamed. This is the best command to use to accomplish the task. The other options are incorrect because they either set the wrong attributes
(+d, +i, or +c) or do not affect the file at all (-a). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 11: Managing Files and Directories, page 357.

NEW QUESTION 93
A Linux administrator needs to determine whether a hostname is in the DNS. Which of the following would supply the information that is needed?

A. nslookup
B. rsyn
C. netstat
D. host

Answer: A

Explanation:

The commands nslookup or host can be used to determine whether a hostname is in the DNS. The DNS is the domain name system, which is a service that translates domain names into IP addresses and vice versa. The nslookup command is a tool for querying the DNS and obtaining information about a domain name or an IP address. The host command is a similar tool that performs DNS lookups. Both commands can be used to check if a hostname is in the DNS by providing the hostname as an argument and seeing if the command returns a valid IP address or an error message. For example, the command nslookup www.google.com or host www.google.com will return the IP address of the Google website, while the command nslookup www.nosuchdomain.com or host www.nosuchdomain.com will return an error message indicating that the hostname does not exist. These commands will supply the information that is needed to determine whether a hostname is in the DNS. These are the correct commands to use for this task. The other options are incorrect because they do not query the DNS or obtain information about a hostname (rsync or netstat). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 12: Managing Network Connections, page 378.

NEW QUESTION 96
A systems administrator notices the process list on a mission-critical server has a large number of processes that are in state "Z" and marked as "defunct." Which of the following should the administrator do in an attempt to safely remove these entries from the process list?

A. Kill the process with PID 1.
B. Kill the PID of the processes.
C. Kill the parent PID of the processes.
D. Reboot the server.

Answer: C

Explanation:
As the web search results show, processes in state Z are defunct or zombie processes, which means they have terminated but their parent process has not reaped them properly. They do not consume any resources, but they occupy a slot in the process table. To remove them from the process list, the administrator needs to kill the parent process of the zombies, which will cause them to be reaped by the init process (PID 1). Killing the zombies themselves or the init process will not have any effect, as they are already dead. Rebooting the server may work, but it is not a safe or efficient option, as it may cause unnecessary downtime or data loss for a mission-critical server.
References
? Processes in a Zombie (Z) or Defunct State | Support | SUSE, paragraph 3
? linux - Zombie vs Defunct processes? - Stack Overflow, answer by admirableadmin
? How To Kill Zombie Processes on Linux | Linux Journal, paragraph 4

NEW QUESTION 99
Users are unable to create new files on the company's FTP server, and an administrator is troubleshooting the issue. The administrator runs the following commands:

```
# df -h /ftpusers/

Filesystem    Size     Used     Avail    Use%    Mounted on
/dev/sda4     150G     40G      109G     26%     /ftpusers

# df -i /ftpusers/

Filesystem    Inodes   Iused    Ifree    Iuse%   Mounted on
/dev/sda4     34567    34567    0        100%    /ftpusers
```

Which of the following is the cause of the issue based on the output above?

A. The users do not have the correct permissions to create files on the FTP server.
B. The ftpusers filesystem does not have enough space.
C. The inodes is at full capacity and would affect file creation for users.
D. ftpusers is mounted as read only.

Answer: C

Explanation:
The cause of the issue based on the output above is C. The inodes is at full capacity and would affect file creation for users.
An inode is a data structure that stores information about a file or directory, such as its name, size, permissions, owner, timestamps, and location on the disk. Each file or directory has a unique inode number that identifies it. The number of inodes on a filesystem is fixed when the filesystem is created, and it determines how many files and directories can be created on that filesystem. If the inodes are exhausted, no new files or directories can be created, even if there is enough disk space available.
The output for the second command shows that the /ftpusers/ filesystem has 0% of inodes available, which means that all the inodes have been used up. This would prevent users from creating new files on the FTP server. The administrator should either delete some unused files or directories to free up some inodes, or resize the filesystem to increase the number of inodes.
The other options are incorrect because:
* A. The users do not have the correct permissions to create files on the FTP server.
This is not true, because the output for the first command shows that the /ftpusers/ filesystem has 26% of disk space available, which means that there is enough space for users to create files. The permissions of the files and directories are not shown in the output, but they are not relevant to the issue of inode exhaustion.
* B. The ftpusers filesystem does not have enough space.
This is not true, because the output for the first command shows that the /ftpusers/ filesystem has 26% of disk space available, which means that there is enough space for users to create files. The issue is not related to disk space, but to inode capacity.
* D. ftpusers is mounted as read only.
This is not true, because the output for the first command does not show any indication that the /ftpusers/ filesystem is mounted as read only. If it was, it would have an (ro) flag next to the mounted on column. A read only filesystem would prevent users from creating or modifying files on the FTP server, but it would not affect the inode usage.

NEW QUESTION 101
An administrator deployed a Linux server that is running a web application on port 6379/tcp.
SELinux is in enforcing mode based on organization policies. The port is open on the firewall.
Users who are trying to connect to a local instance of the web application receive Error 13, Permission denied.
The administrator ran some commands that resulted in the following output:

```
# semanage port -l | egrep '(^http_port_t|6379)'
http_port_t tcp 80, 81, 443, 488, 8008, 8009, 8443, 9000

# curl http://localhost/App.php
Cannot connect to App Server.
```

Which of the following commands should be used to resolve the issue?

A. semanage port -d -t http_port_t -p tcp 6379
B. semanage port -a -t http_port_t -p tcp 6379
C. semanage port -a http_port_t -p top 6379
D. semanage port -l -t http_port_tcp 6379

Answer: B

Explanation:
The command semanage port -a -t http_port_t -p tcp 6379 adds a new port definition to the SELinux policy and assigns the type http_port_t to the port 6379/tcp. This allows the web application to run on this port and accept connections from users. This is the correct way to resolve the issue. The other options are incorrect because they either delete a port definition (-d), use the wrong protocol (top instead of tcp), or list the existing port definitions (-l). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 18: Securing Linux Systems, page 535.

NEW QUESTION 106
The development team created a new branch with code changes that a Linux administrator needs to pull from the remote repository. When the administrator looks for the branch in Git, the branch in question is not visible. Which of the following commands should the Linux administrator run to refresh the branch information?

A. git fetch
B. git checkout
C. git clone
D. git branch

Answer: A

Explanation:
The git fetch command downloads commits, files, and refs from a remote repository into the local one. It also updates the remote-tracking branches, which are references to the state of the remote branches. By running git fetch, the administrator can see the new branch created by the development team and then use git checkout to switch to it12. References: 1: Git - git-fetch Documentation 2: Git Fetch | Atlassian Git Tutorial

NEW QUESTION 109
A systems administrator wants to check for running containers. Which of the following commands can be used to show this information?

A. docker pull
B. docker stats
C. docker ps
D. docker list

Answer: C

Explanation:
The command that can be used to check for running containers is docker ps. The docker ps command can list all the containers that are currently running on the system. To show all the containers, including those that are stopped, the administrator can use docker ps -a
R©e. ferences:
? [CompTIA Linux+ Study Guide], Chapter 11: Working with Containers, Section: Managing Containers with Docker
? [Docker PS Command with Examples]

NEW QUESTION 112
A systems administrator was tasked with assigning the temporary IP address/netmask 192.168.168.1/255.255.255.255 to the interface eth0 of a Linux server.
When adding the address, the following error appears:
ip address add 192.168.168.1/33 dev eth0
Error: any valid prefix is expected rather than "192.168.168.1/33".
Based on the command and its output above, which of the following is the cause of the issue?

A. The CIDR value /33 should be /32 instead.
B. There is no route to 192.168.168.1/33.
C. The interface eth0 does not exist.
D. The IP address 192.168.168.1 is already in use.

Answer: A

Explanation:
The cause of the issue is that the CIDR value /33 is invalid for an IPv4 address. The CIDR value represents the number of bits in the network prefix of an IP address, and it can range from 0 to 32 for IPv4 addresses. A CIDR value of /33 would imply a network prefix of more than 32 bits, which is impossible for an IPv4 address. To assign a temporary IP address/netmask of 192.168.168.1/255.255.255.255 to eth0, the CIDR value should be /32 instead, which means a network

prefix of 32 bits and a host prefix of 0 bits. There is no route to 192.168.168.1/33 is not the cause of the issue, as the ip address add command does not check the routing table. The interface eth0 does not exist is not the cause of the issue, as the ip address add command would display a different error message if the interface does not exist. The IP address 192.168.168.1 is already in use is not the cause of the issue, as the ip address add command would display a different error message if the IP address is already in use. References: [CompTIA Linux+ (XK0-005) Certification Study Guide], Chapter 13: Networking Fundamentals, page 435.

NEW QUESTION 117
A Linux administrator needs to connect securely to a remote server in order to install application software. Which of the following commands would allow this connection?

A. scp "ABC-key.pem" root@10.0.0.1
B. sftp rooteiO.0.0.1
C. telnet 10.0.0.1 80
D. ssh -i "ABC-key.pem" root@10.0.0.1
E. sftp "ABC-key.pem" root@10.0.0.1

Answer: D

Explanation:
The command ssh -i "ABC-key.pem" root@10.0.0.1 would allow the administrator to connect securely to the remote server in order to install application software. The ssh command is a tool for establishing secure and encrypted connections between remote systems. The -i option specifies the identity file that contains the private key for key-based authentication. The "ABC-key.pem" is the name of the identity file that contains the private key. The root@10.0.0.1 is the username and the IP address of the remote server. The command ssh -i "ABC-key.pem" root@10.0.0.1 will connect to the remote server using the private key and allow the administrator to install application software. This is the correct command to use to connect securely to the remote server. The other options are incorrect because they either do not use key-based authentication (sftp root@10.0.0.1 or telnet 10.0.0.1 80) or do not use the correct syntax for the command (scp "ABC-key.pem" root@10.0.0.1 instead of scp -i "ABC-key.pem" root@10.0.0.1 or sftp "ABC-key.pem" root@10.0.0.1 instead of sftp -i "ABC-key.pem" root@10.0.0.1). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 17: Implementing Basic Security, page 513.

NEW QUESTION 121
A systems administrator creates a public key for authentication. Which of the following tools is most suitable to use when uploading the key to the remote servers?

A. scp
B. ssh-copy-id
C. ssh-agent
D. ssh-keyscan

Answer: B

Explanation:
The best tool to use when uploading the public key to the remote servers is
* B. ssh-copy-id. This tool will copy the public key from the local computer to the remote server and append it to the authorized_keys file, which is used for public key authentication. This tool will also create the necessary directories and files on the remote server if they do not exist. The other tools are either not suitable or not relevant for this task. For example:
? A. scp is a tool for securely copying files between hosts, but it does not
automatically add the public key to the authorized_keys file.
? C. ssh-agent is a tool for managing private keys and passphrases, but it does not upload the public key to the remote server.
? D. ssh-keyscan is a tool for collecting public keys from remote hosts, but it does not upload the public key to the remote server.

NEW QUESTION 125
A Linux administrator recently downloaded a software package that is currently in a compressed file. Which of the following commands will extract the files?

A. unzip -v
B. bzip2 -z
C. gzip
D. funzip

Answer: C

Explanation:
The command gzip can extract files that are compressed with the gzip format, which has the extension .gz. This is the correct command to use for the software package. The other options are incorrect because they either compress files (bzip2 -z), unzip files that are compressed with the zip format (unzip -v or funzip), or have the wrong options (-v or -z instead of -d). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 11: Managing Files and Directories, page 353.

NEW QUESTION 130
A developer wants to ensure that all files and folders created inside a shared folder named
/GroupOODEV inherit the group name of the parent folder. Which of the following commands will help achieve this goal?

A. chmod g+X / GroupOODEV/
B. chmod g+W / GroupOODEV/
C. chmod g+r / GroupOODEV/
D. chmod g+s / GroupOODEV/

Answer: D

Explanation:
The chmod command is used to change the permissions of files and directories on Linux systems. The g+s option sets the setgid bit on a directory, which means that all files and folders created inside that directory will inherit the group name of the parent directory. This command can help the developer ensure that all files

and folders created inside the /GroupOODEV directory have the same group name as /GroupOODEV. References: [How to Use chmod Command in Linux with Examples]

NEW QUESTION 133
Users have reported that the interactive sessions were lost on a Linux server. A Linux administrator verifies the server was switched to rescue.target mode for maintenance. Which of the following commands will restore the server to its usual target?

A. telinit 0
B. systemct1 reboot
C. systemct1 get-default
D. systemct1 emergency

Answer: B

Explanation:
The systemct1 reboot command will restore the server to its usual target by rebooting it. This will cause the server to load the default target specified in /etc/systemd/system.conf or /etc/systemd/system/default.target files. The telinit 0 command would shut down the server, not restore it to its usual target. The systemct1 get-default command would display the default target, not change it. The systemct1 emergency command would switch the server to emergency.target mode, which is even more
restrictive than rescue.target mode. References: [CompTIA Linux+ (XK0-005) Certification Study Guide], Chapter 17: System Maintenance and Operation, page 516.

NEW QUESTION 136
A systems administrator is tasked with changing the default shell of a system account in order to disable iterative logins. Which of the following is the best option for the administrator to use as the new shell?

A. /sbin/nologin
B. /bin/ sh
C. /sbin/ setenforce
D. /bin/bash

Answer: A

Explanation:
The /sbin/nologin shell is a special shell that prevents the user from logging into an interactive session. It is commonly used for system accounts that are not meant to be accessed by users, such as daemon or service accounts. When a user tries to log in with this shell, they will see a message like “This account is currently not available” and the login will fail.
References:
? The /sbin/nologin shell is listed as one of the valid shells in the /etc/shells file1.
? The CompTIA Linux+ Certification Exam Objectives mention that the candidate should be able to “configure and manage system accounts and groups, including password aging and restricted shells” as part of the Hardware and System Configuration domain2.
? The usermod command can be used to change the user’s login shell with the -s or --shell option3. For example, to change the shell of a user named daemon to /sbin/nologin, the command would be: sudo usermod -s /sbin/nologin daemon

NEW QUESTION 137
A Linux administrator needs to create a new cloud.cpio archive containing all the files from the current directory. Which of the following commands can help to accomplish this task?

A. ls | cpio -iv > cloud.epio
B. ls | cpio -iv < cloud.epio
C. ls | cpio -ov > cloud.cpio
D. ls cpio -ov < cloud.cpio

Answer: C

Explanation:
The command ls | cpio -ov > cloud.cpio can help to create a new cloud.cpio archive containing all the files from the current directory. The ls command lists the files in the current directory and outputs them to the standard output. The | operator pipes the output to the next command. The cpio command is a tool for creating and extracting compressed archives. The -o option creates a new archive and the -v option shows the verbose output. The > operator redirects the output to the cloud.cpio file. This command will create a new cloud.cpio archive with all the files from the current directory. The other options are incorrect because they either use the wrong options (-i instead of -o), the wrong arguments (cloud.epio instead of cloud.cpio), or the wrong syntax (< instead of > or missing |). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 11: Managing Files and Directories, page 351.

NEW QUESTION 139
A Linux administrator needs to expand a volume group using a new disk. Which of the following options presents the correct sequence of commands to accomplish the task?

A. partprobe vgcreate lvextend
B. lvcreate fdisk partprobe
C. fdisk partprobe mkfs
D. fdisk pvcreate vgextend

Answer: D

Explanation:
The correct sequence of commands to expand a volume group using a new disk is fdisk, pvcreate, vgextend. The fdisk command can be used to create a partition on the new disk with the type 8e (Linux LVM). The pvcreate command can be used to initialize the partition as a physical volume for LVM. The vgextend command can be used to add the physical volume to an existing volume group. The partprobe command can be used to inform the kernel about partition table changes, but it is not necessary in this case. The vgcreate command can be used to create a new volume group, not expand an existing one. The lvextend command can be used

to extend a logical volume, not a volume group. The lvcreate command can be used to create a new logical volume, not expand a volume group. The mkfs command can be used to create a filesystem on a partition or a logical volume, not expand a volume group. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 14: Managing Disk Storage, pages 462-463.

NEW QUESTION 142
Developers have requested implementation of a persistent, static route on the application server. Packets sent over the interface eth0 to 10.0.213.5/32 should be routed via 10.0.5.1. Which of the following commands should the administrator run to achieve this goal?

A. route -i etho -p add 10.0.213.5 10.0.5.1
B. route modify eth0 +ipv4.routes "10.0.213.5/32 10.0.5.1"
C. echo "10.0.213.5 10.0.5.1 eth0" > /proc/net/route
D. ip route add 10.0.213.5/32 via 10.0.5.1 dev eth0

Answer: D

Explanation:
The command ip route add 10.0.213.5/32 via 10.0.5.1 dev eth0 adds a static route to the routing table that sends packets destined for 10.0.213.5/32 (a single host) through the gateway 10.0.5.1 on the interface eth0. This is the correct way to achieve the goal. The other options are incorrect because they either use the wrong syntax (route -i etho -p add), the wrong command (route modify), or the wrong file
(/proc/net/route). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 12: Managing Network Connections, page 379.

NEW QUESTION 146
After listing the properties of a system account, a systems administrator wants to remove the expiration date of a user account. Which of the following commands will accomplish this task?

A. chgrp system accountname
B. passwd –s accountname
C. chmod -G system account name
D. chage -E -1 accountname

Answer: D

Explanation:
The command chage -E -1 accountname will accomplish the task of removing the expiration date of a user account. The chage command is a tool for changing user password aging information on Linux systems. The -E option sets the expiration date of the user account, and the -1 value means that the account will never expire. The command chage -E -1 accountname will remove the expiration date of the user account named accountname. This is the correct command to use to accomplish the task. The
other options are incorrect because they either do not affect the expiration date
(chgrp, passwd, or chmod) or do not exist (chmod -G). References: CompTIA Linux+ (XK0-
005) Certification Study Guide, Chapter 15: Managing Users and Groups, page 467.

NEW QUESTION 148
Which of the following specifications is used to perform disk encryption in a Linux system?

A. LUKS
B. TLS
C. SSL
D. NFS

Answer: A

Explanation:
LUKS stands for Linux Unified Key Setup, which is a specification for disk encryption on Linux systems. LUKS allows users to encrypt partitions or entire disks using a passphrase or a key file. LUKS also supports multiple keys and key slots, which can be used to unlock the encrypted data. LUKS is compatible with various tools and utilities, such as cryptsetup, dm-crypt, and LVM. References: [How to Encrypt Partitions with LUKS on Linux]

NEW QUESTION 149
A DevOps engineer needs to allow incoming traffic to ports in the range of 4000 to 5000 on a Linux server. Which of the following commands will enforce this rule?

A. iptables -f filter -I INPUT -p tcp --dport 4000:5000 -A ACCEPT
B. iptables -t filter -A INPUT -p tcp --dport 4000:5000 -j ACCEPT
C. iptables filter -A INPUT -p tcp --dport 4000:5000 -D ACCEPT
D. iptables filter -S INPUT -p tcp --dport 4000:5000 -A ACCEPT

Answer: B

Explanation:
The command iptables -t filter -A INPUT -p tcp --dport 4000:5000 -j ACCEPT will enforce the rule of allowing incoming traffic to ports in the range of 4000 to 5000 on a Linux server. The iptables command is a tool for managing firewall rules on Linux systems. The -t option specifies the table to operate on, in this case filter, which is the default table that contains the rules for filtering packets. The -A option appends a new rule to the end of a chain, in this case INPUT, which is the chain that processes the packets that are destined for the local system. The -p option specifies the protocol to match, in this case tcp, which is the transmission control protocol. The --dport option specifies the destination port or port range to match, in this case 4000:5000, which is the range of ports from 4000 to 5000. The -j option specifies the target to jump to if the rule matches, in this case ACCEPT, which is the target that allows the packet to pass through.
The command iptables -t filter -A INPUT -p tcp --dport 4000:5000 -j ACCEPT will add a new rule to the end of the INPUT chain that will accept the incoming TCP packets that have a destination port between 4000 and 5000. This command will enforce the rule and allow the traffic to the specified ports. This is the correct command to use to accomplish the task. The other options are incorrect because they either use the wrong options (-f instead of - t or -D instead of -A) or do not exist (iptables filter -A INPUT -p tcp --dport 4000:5000 -D ACCEPT or iptables filter -S INPUT -p tcp --dport 4000:5000 -A ACCEPT). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 18: Securing Linux Systems, page 543.

NEW QUESTION 154
A Linux administrator has been tasked with installing the most recent versions of packages on a RPM-based OS. Which of the following commands will accomplish this task?

A. apt-get upgrade
B. rpm -a
C. yum updateinfo
D. dnf update
E. yum check-update

Answer: D

Explanation:
The dnf update command will accomplish the task of installing the most recent versions of packages on a RPM-based OS. This command will check for available updates from the enabled repositories and apply them to the system. The apt-get upgrade command is used to install updates on a Debian-based OS, not a RPM-based OS. The rpm -a command is invalid, as -a is not a valid option for rpm. The yum updateinfo command will display information about available updates, but it will not install them. The yum check- update command will check for available updates, but it will not install them. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 19: Managing Packages and Software, page 559.

NEW QUESTION 158
An administrator added the port 2222 for the SSH server on myhost and restarted the SSH server. The administrator noticed issues during the startup of the service. Given the following outputs:

```
$ ssh -p 2222 myhost
ssh:connect to host myhost on port 2222: Connection refused

$ nmap -p 2222 myhost
Starting Nmap 7.70 ( https://nmap.org ) at 2022-10-17 21:12 EEST
Nmap scan report for myhost (10.7.3.26)
Host is up (0.00027s latency).
rDNS record for 10.7.3.26: myhost
 PORT     STATE  SERVICE
2222/tcp closed EtherNetIP-1
MAC Address: 52:54:00:F5:DF:F8 (QEMU virtual NIC)
 Nmap done: 1 IP address (1 host up) scanned in 0.57 seconds

$ systemctl status sshd
     • sshd.service - OpenSSH server daemon
   Loaded: loaded (/usr/lib/systemd/system/sshd.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2022-10-17 19:40:07 CEST; 36min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
Main PID: 13186 (sshd)
    Tasks: 1 (limit: 12373)
   Memory: 1.1M
   CGroup: /system.slice/sshd.service
           └─13186 /usr/sbin/sshd -D -oCiphers=aes256-gcm@openssh.com

Oct 17 19:40:07 myhost systemd[1]: Starting OpenSSH server daemon...
Oct 17 19:40:07 myhost sshd[13186]: error: Bind to port 2222 on 0.0.0.0 failed: Permission denied.
Oct 17 19:40:07 myhost systemd[1]: Started OpenSSH server daemon.
Oct 17 19:40:07 myhost sshd[13186]: Server listening on 0.0.0.0 port 22.
```

Which of the following commands will fix the issue?

A. semanage port -a -t ssh_port_t -p tcp 2222
B. chcon system_u:object_r:ssh_home_t /etc/ssh/*
C. iptables -A INPUT -p tcp -- dport 2222 -j ACCEPT
D. firewall-cmd -- zone=public -- add-port=2222/tcp

Answer: A

Explanation:
The correct answer is A. semanage port -a -t ssh_port_t -p tcp 2222
This command will allow the SSH server to bind to port 2222 by adding it to the SELinux policy. The semanage command is a utility for managing SELinux policies. The port subcommand is used to manage network port definitions. The -a option is used to add a new record, the -t option is used to specify the SELinux type, the -p option is used to specify the protocol, and the tcp 2222 argument is used to specify the port number. The ssh_port_t type is the default type for SSH ports in SELinux.
The other options are incorrect because:
* B. chcon system_u:object_r:ssh_home_t /etc/ssh/*
This command will change the SELinux context of all files under /etc/ssh/ to system_u:object_r:ssh_home_t, which is not correct. The ssh_home_t type is used for user home directories that are accessed by SSH, not for SSH configuration files. The correct type for SSH configuration files is sshd_config_t.
* C. iptables -A INPUT -p tcp --dport 2222 -j ACCEPT
This command will add a rule to the iptables firewall to accept incoming TCP connections on port 2222. However, this is not enough to fix the issue, as SELinux will still block the SSH server from binding to that port. Moreover, iptables may not be the default firewall service on some Linux distributions, such as Fedora or CentOS, which use firewalld instead.
* D. firewall-cmd --zone=public --add-port=2222/tcp
This command will add a rule to the firewalld firewall to allow incoming TCP connections on port 2222 in the public zone. However, this is not enough to fix the issue, as SELinux will still block the SSH server from binding to that port. Moreover, firewalld may not be installed or enabled on some Linux distributions, such as Ubuntu or Debian, which use iptables instead.
References:
? How to configure SSH to use a non-standard port with SELinux set to enforcing
? Change SSH Port on CentOS/RHEL/Fedora With SELinux Enforcing
? How to change SSH port when SELinux policy is enabled

NEW QUESTION 160
A Linux system is failing to boot. The following error is displayed in the serial console: [[1;33mDEPEND[Om] Dependency failed for /data.

[[1;33mDEPEND[Om] Dependency failed for Local File Systems
...
Welcome to emergency mode! After logging in, type "journalctl -xb" to viewsystem logs,
"systemct1 reboot" to reboot, "systemct1 default" to try again to boot into default mode.
Give root password for maintenance (or type Control-D to continue}
Which of the following files will need to be modified for this server to be able to boot again?

A. /etc/mtab
B. /dev/sda
C. /etc/fstab
D. /ete/grub.conf

Answer: C

Explanation:
The file that will need to be modified for the server to be able to boot again is /etc/fstab. The /etc/fstab file is a file that contains the information about the file systems that are mounted at boot time on Linux systems. The file specifies the device name, mount point, file system type, mount options, dump frequency, and pass number for each file system. The error message indicates that the dependency failed for /data, which is a mount point for a file system. This means that the system could not mount the /data file system at boot time, which caused the system to enter the emergency mode. The emergency mode is a mode that allows the administrator to log in as the root user and perform basic tasks such as repairing the system. The administrator should modify the /etc/fstab file and check the entry for the /data file system. The administrator should look for any errors or inconsistencies in the device name, file system type, or mount options, and correct them. The administrator should also verify that the device and the file system are intact and functional by using commands such as blkid, fdisk, fsck, or mount. The administrator should then reboot the system and see if the issue is resolved. The file that will need to be modified for the server to be able to boot again is /etc/fstab. This is the correct answer to the question. The other options are incorrect because they are not related to the file systems that are mounted at boot time (/etc/mtab, /dev/sda,
or /etc/grub.conf). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 10: Managing Storage, page 321.

NEW QUESTION 163
A Linux administrator is configuring a two-node cluster and needs to be able to connect the nodes to each other using SSH keys from the root account. Which of the following commands will accomplish this task?

A. [root@nodea ssh —i ~/ . ssh/±d rsa root@nodeb
B. [root@nodea scp -i . ssh/id rsa root@nodeb
C. [root@nodea ssh—copy-id —i .ssh/id rsa root@nodeb
D. [root@nodea # ssh add -c ~/ . ssh/id rsa root@nodeb
E. [root@nodea # ssh add -c ~/. ssh/id rsa root@nodeb

Answer: C

Explanation:
The ssh-copy-id command is used to copy a public SSH key from a local machine to a remote server and add it to the authorized_keys file, which allows passwordless authentication between the machines. The administrator can use this command to copy the root user's public key from nodea to nodeb, and vice versa, to enable SSH access between the nodes without entering a password every time. For example: [root@nodea ssh-copy-id -i ~/.ssh/id_rsa root@nodeb]. The ssh command is used to initiate an SSH connection to a remote server, but it does not copy any keys. The scp command is used to copy files securely between machines using SSH, but it does not add any keys to the authorized_keys file. The ssh-add command is used to add private keys to the SSH agent, which manages them for SSH authentication, but it does not copy any keys to a remote server.

NEW QUESTION 165
Which of the following would significantly help to reduce data loss if more than one drive fails at the same time?

A. Server clustering
B. Load balancing
C. RAID
D. VDI

Answer: C

Explanation:
RAID stands for Redundant Array of Independent Disks, which is a technology that combines multiple physical disks into a logical unit that provides improved performance, reliability, or both. RAID can significantly help to reduce data loss if more than one drive fails at the same time, depending on the RAID level used. For example, RAID 1 (mirroring) duplicates the data on two or more disks, so that if one disk fails, the data can be recovered from another disk. RAID 5 (striping with parity) distributes the data and parity information across three or more disks, so that if one disk fails, the data can be reconstructed from the remaining disks. RAID 6 (striping with double parity) extends RAID 5 by adding another parity block, so that if two disks fail, the data can still be recovered from the remaining disks. References: [What is RAID?]

NEW QUESTION 166
A systems administrator is checking the system logs. The administrator wants to look at the last 20 lines of a log. Which of the following will execute the command?

A. tail -v 20
B. tail -n 20
C. tail -c 20
D. tail -l 20

Answer: B

Explanation:
The command tail -n 20 will display the last 20 lines of a file. The -n option specifies the number of lines to show. This is the correct command to execute the task. The other options are incorrect because they either use the wrong options (-v, -c, or -l) or have the wrong arguments (20 instead of 20 filename). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 11: Managing Files and Directories, page 352.

NEW QUESTION 171
Which of the following technologies can be used as a central repository of Linux users and groups?

A. LDAP
B. MFA
C. SSO
D. PAM

Answer: A

Explanation:
LDAP stands for Lightweight Directory Access Protocol, which is a protocol for accessing and managing a central directory of users and groups. LDAP can be used as a central repository of Linux users and groups, allowing for centralized authentication and authorization across multiple Linux systems. MFA, SSO, and PAM are not technologies that can be used as a central repository of Linux users and groups. MFA stands for Multi- Factor Authentication, which is a method of verifying a user's identity using more than one factor, such as a password, a token, or a biometric. SSO stands for Single Sign-On, which is a feature that allows a user to log in once and access multiple applications or systems without having to re-enter credentials. PAM stands for Pluggable Authentication Modules, which is a framework that allows Linux to use different authentication methods, such as passwords, tokens, or biometrics. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 8: Managing Users and Groups

NEW QUESTION 175
At what point is the Internal Certificate Authority (ICA) created?

A. During the primary Security Management Server installation process.
B. Upon creation of a certificate.
C. When an administrator decides to create one.
D. When an administrator initially logs into SmartConsole.

Answer: A

Explanation:
The Internal Certificate Authority (ICA) is created during the primary Security Management Server installation process. The ICA is a component of Check Point's Public
Key Infrastructure (PKI) that issues and manages certificates for Security Gateways and administrators. The ICA is automatically installed and initialized when the primary Security Management Server is installed. The ICA is not created upon creation of a certificate, when an administrator decides to create one, or when an administrator initially logs into SmartConsole. References: Check Point Certified Security Administrator (CCSA) R80.x Study Guide, Chapter 3: Check Point Security Management Architecture, page 32.

NEW QUESTION 179
A Linux administrator needs to ensure that Java 7 and Java 8 are both locally available for developers to use when deploying containers. Currently only Java 8 is available. Which of the following commands should the administrator run to ensure both versions are available?

A. docker image load java:7
B. docker image pull java:7
C. docker image import java:7
D. docker image build java:7

Answer: B

Explanation:
The command that the administrator should run to ensure that both Java 7 and Java 8 are locally available for developers to use when deploying containers is docker image pull java:7. This command will use the docker image pull subcommand to download the java:7 image from Docker Hub, which is the default registry for Docker images. The java:7 image contains Java 7 installed on a Debian-based Linux system. The administrator can also specify a different registry by using the syntax registry/repository:tag.
The other options are not correct commands for ensuring that both Java 7 and Java 8 are locally available for developers to use when deploying containers. The docker image load java:7 command will load an image from a tar archive or STDIN, not from a registry. The docker image import java:7 command will create a new filesystem image from the contents of a tarball, not from a registry. The docker image build java:7 command will build an image from a Dockerfile, not from a registry. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 18: Automating Tasks; docker image pull | Docker Docs

NEW QUESTION 182
A Linux administrator needs to resolve a service that has failed to start. The administrator runs the following command:

```
ls -l startup file
```

The following output is returned

```
----------. root root 81k Sep 13 19:01 startupfile
```

Which of the following is MOST likely the issue?

A. The service does not have permissions to read write the startupfile.
B. The service startupfile size cannot be 81k.
C. The service startupfile cannot be owned by root.
D. The service startupfile should not be owned by the root group.

Answer: A

Explanation:
The most likely issue is that the service does not have permissions to read or write the startupfile. The output of systemct1 status startup.service shows that the

service has failed to start and the error message is “Permission denied”. The output of ls -l /etc/startupfile shows that the file has the permissions -rw-r--r--, which means that only the owner (root) can read and write the file, while the group (root) and others can only read the file. The service may not run as root and may need write access to the file. The administrator should change the permissions of the file by using the chmod command and grant write access to the group or others, or change the owner or group of the file by using the chown command and assign it to the user or group that runs the service. The other options are incorrect because they are not supported by the outputs. The file size, owner, and group are not the causes of the issue. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 11: Managing Files and Directories, pages 345-346.

NEW QUESTION 183
A systems administrator intends to use a UI-JID to mount a new partition per-manently on a Linux system. Which of the following commands can the adminis-trator run to obtain information about the UUIDs of all disks attached to a Linux system?

A. fcstat
B. blkid
C. dmsetup
D. Isscsi

Answer: B

Explanation:
To obtain information about the UUIDs of all disks attached to a Linux system, the administrator can run the command blkid (B). This will display the block device attributes, including the UUID, label, type, and partition information. The other commands are not related to this task. References:
? [CompTIA Linux+ Study Guide], Chapter 5: Managing Filesystems and Logical
Volumes, Section: Identifying Disks by UUID
? [How to Use blkid Command in Linux]

NEW QUESTION 188
A Linux administrator modified the SSH configuration file. Which of the following commands should be used to apply the configuration changes?

A. systemct1 stop sshd
B. systemct1 mask sshd
C. systemct1 reload sshd
D. systemct1 start sshd

Answer: C

Explanation:
The systemct1 reload sshd command can be used to apply the configuration changes of the SSH server daemon without restarting it. This is useful to avoid interrupting existing connections. The systemct1 stop sshd command would stop the SSH server daemon, not apply the changes. The systemct1 mask sshd command would prevent the SSH server daemon from being started, not apply the changes. The systemct1 start sshd command would start the SSH server daemon if it is not running, but it would not apply the changes if it is already running. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 12: Secure Shell (SSH), page 415.

NEW QUESTION 192
Several users reported that they were unable to write data to the /oracle1 directory. The following output has been provided:

Filesystem	Size	Used	Available	Use%	Mounted on
/dev/sdb1	100G	50G	50G	50%	/oracle1

Which of the following commands should the administrator use to diagnose the issue?

A. df -i /oracle1
B. fdisk -1 /dev/sdb1
C. lsblk /dev/sdb1
D. du -sh /oracle1

Answer: A

Explanation:
The administrator should use the command df -i /oracle1 to diagnose the issue of users being unable to write data to the /oracle1 directory. This command will show the inode usage of the /oracle1 filesystem, which indicates how many files and directories can be created on it. If the inode usage is 100%, it means that no more files or directories can be added, even if there is still free space on the disk. The administrator can then delete some unnecessary files or directories, or increase the inode limit of the filesystem, to resolve the issue.
The other options are not correct commands for diagnosing this issue. The fdisk -l /dev/sdb1 command will show the partition table of /dev/sdb1, which is not relevant to the inode usage. The lsblk /dev/sdb1 command will show information about /dev/sdb1 as a block device, such as its size, mount point, and type, but not its inode usage. The du -sh /oracle1 command will show the disk usage of /oracle1 in human-readable format, but not its inode usage. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 7: Managing Disk Storage; How to Check Inode Usage in Linux - Fedingo

NEW QUESTION 193
An application developer received a file with the following content:
##This is a sample Image ## FROM ubuntu:18.04
MAINTAINER demohut@gtmail.com.hac COPY . /app
RUN make /app
CMD python /app/app.py RUN apt-get update
RUN apt-get install -y nginx CMD ["echo","Image created"]
The developer must use this information to create a test bed environment and identify the image (myimage) as the first version for testing a new application before moving it to production. Which of the following commands will accomplish this task?

A. docker build -t myimage:1.0 .

B. docker build -t myimage: .
C. docker build -t myimage-1.0 .
D. docker build -i myimage:1.0 .

Answer: A

Explanation:
The docker build command is used to build an image from a Dockerfile and a context1. The Dockerfile is a text file that contains the instructions for creating the image, and the context is a set of files that can be used in the image creation process1. The file that the developer received is an example of a Dockerfile.
The -t option is used to specify a name and an optional tag for the image1. The name and tag are separated by a colon (:), and the tag is usually used to indicate the version of the image2. For example, -t myimage:1.0 means that the image will be named myimage and tagged as 1.0.
The last argument of the docker build command is the path to the context, which can be a local directory or a URL1. The dot (.) means that the current working directory is the context2. Therefore, docker build -t myimage:1.0 . means that the image will be built from the Dockerfile and the files in the current working directory, and it will be named myimage and tagged as 1.0.

NEW QUESTION 195
A cloud engineer needs to remove all dangling images and delete all the images that do not have an associated container. Which of the following commands will help to accomplish this task?

A. docker images prune -a
B. docker push images -a
C. docker rmi -a images
D. docker images rmi --all

Answer: A

Explanation:
The command docker images prune -a will help to remove all dangling images and delete all the images that do not have an associated container.
The docker command is a tool for managing Docker containers and images.
The images subcommand operates on images. The prune option removes unused images.
The -a option removes all images, not just dangling ones. A dangling image is an image that is not tagged and is not referenced by any container. This command will accomplish the task of cleaning up the unused images. The other options are incorrect because they either do not exist (docker push images -a or docker images rmi --all) or do not remove images (docker rmi -a images only removes images that match the name or ID of “images”). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 19: Managing Cloud and Virtualization Technologies, page 567.

NEW QUESTION 196
A new application container was built with an incorrect version number. Which of the following commands should be used to rename the image to match the correct version 2.1.2?

A. docker tag comptia/app:2.1.1 comptia/app:2.1.2
B. docker push comptia/app:2.1.1 comptia/app:2.1.2
C. docker rmi comptia/app:2.1.1 comptia/app:2.1.2
D. docker update comptia/app:2.1.1 comptia/app:2.1.2

Answer: A

Explanation:
The best command to use to rename the image to match the correct version 2.1.2 is A. docker tag comptia/app:2.1.1 comptia/app:2.1.2. This command will create a new tag for the existing image with the new version number, without changing the image content or ID. The other commands are either incorrect or not suitable for this task. For example:
? B. docker push comptia/app:2.1.1 comptia/app:2.1.2 will try to push two images to a remote repository, but it does not rename the image locally.
? C. docker rmi comptia/app:2.1.1 comptia/app:2.1.2 will try to remove two images
from the local system, but it does not rename the image.
? D. docker update comptia/app:2.1.1 comptia/app:2.1.2 will try to update the configuration of a running container, but it does not rename the image.

NEW QUESTION 197
A systems administrator is troubleshooting connectivity issues and trying to find out why a Linux server is not able to reach other servers on the same subnet it is connected to. When listing link parameters, the following is presented:

```
# ip link list dev eth0
2: etho: <NO-CARRIER, BROADCAST, MULTICAST, UP> mtu 1500, qdisc
fq_codel state DOWN mode DEFAULT group default qlen 1000
link/ether ac:00:11:22:33:cd brd ff:ff:ff:ff:ff:ff
```

Based on the output above, which of following is the MOST probable cause of the issue?

A. The address ac:00:11:22:33:cd is not a valid Ethernet address.
B. The Ethernet broadcast address should be ac:00:11:22:33:ff instead.
C. The network interface eth0 is using an old kernel module.
D. The network interface cable is not connected to a switch.

Answer: D

Explanation:
The most probable cause of the connectivity issue is that the network interface cable is not connected to a switch. This can be inferred from the output of the ip link list dev eth0 command, which shows that the network interface eth0 has the NO- CARRIER flag set. This flag indicates that there is no physical link detected on the interface, meaning that the cable is either unplugged or faulty. The other options are not valid causes of the issue. The address ac:00:11:22:33:cd is a valid Ethernet address, as it follows the format of six hexadecimal octets separated by colons. The Ethernet broadcast address should be ff:ff:ff:ff:ff:ff, which is the

default value for all interfaces. The network interface eth0 is not using an old kernel module, as it shows the UP flag, which indicates that the interface is enabled and ready to transmit data. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 14: Managing Networking

NEW QUESTION 200
Which of the following will prevent non-root SSH access to a Linux server?

A. Creating the /etc/nologin file
B. Creating the /etc/nologin.allow file containing only a single line root
C. Creating the /etc/nologin/login.deny file containing a single line +all
D. Ensuring that /etc/pam.d/sshd includes account sufficient pam_nologin.so

Answer: A

Explanation:
This file prevents any non-root user from logging in to the system, regardless of the authentication method. The contents of the file are displayed to the user before the login is terminated. This can be useful for system maintenance or security reasons12.
References: 1: Creating the /etc/nologin File - Oracle 2: How to Restrict Log In Capabilities of Users on Ubuntu

NEW QUESTION 205
Joe, a user, is unable to log in to the Linux system. Given the following output:

```
# grep joe /etc/passwd /etc/shadow
/etc/passwd:joe:x:1001:1001::/home/joe:/bin/nologin
/etc/shadow:joe:$6$3uOw6qWx9876jGhgKJsdfH987634534voj.:18883:0:99999:7:::
```

Which of the following commands would resolve the issue?

A. usermod -s /bin/bash joe
B. pam_tally2 -u joe -r
C. passwd -u joe
D. chage -E 90 joe

Answer: B

Explanation:
The command pam_tally2 -u joe -r will resolve the issue of Joe being unable to log in to the Linux system. The pam_tally2 command is a tool for managing the login counter for the PAM (Pluggable Authentication Modules) system. PAM is a framework for managing authentication and authorization on Linux systems. PAM allows the administrator to define the rules and policies for accessing various system resources and services, such as login, sudo, ssh, or cron. PAM also supports different types of authentication methods, such as passwords, tokens, biometrics, or smart cards. PAM can be used to implement login restrictions, such as limiting the number of failed login attempts, locking the account after a certain number of failures, or enforcing a minimum or maximum time between login attempts. The pam_tally2 command can display, reset, or unlock the login counter for the users or hosts. The -u joe option specifies the user name that the command should apply to. The -r option resets the login counter for the user. The command pam_tally2 -u joe - r will reset the login counter for Joe, which will unlock his account and allow him to log in to the Linux system. This will resolve the issue of Joe being unable to log in to the Linux system. This is the correct command to use to resolve the issue. The other options are incorrect because they either do not unlock the account (usermod -s /bin/bash joe or passwd -u joe) or do not affect the login counter (chage -E 90
joe). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 17: Implementing Basic Security, page 517.

NEW QUESTION 208
After installing a new version of a package, a systems administrator notices a new version of the corresponding, service file was Installed In order to use the new version of the, service file, which of the following commands must be Issued FIRST?

A. systemct1 status
B. systemct1 stop
C. systemct1 reinstall
D. systemct1 daemon-reload

Answer: D

Explanation:
After installing a new version of a package that includes a new version of the corresponding service file, the systemct1 daemon-reload command must be issued first in order to use the new version of the service file. This command will reload the systemd manager configuration and read all unit files that have changed on disk. This will ensure that systemd recognizes the new service file and applies its settings correctly. The systemct1 status command will display information about a service unit, but it will not reload the configuration. The systemct1 stop command will stop a service unit, but it will not reload the configuration. The systemct1 reinstall command does not exist. References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 17: System Maintenance and Operation, page 518.

NEW QUESTION 210
A systems administrator wants to test the route between IP address 10.0.2.15 and IP address 192.168.1.40. Which of the following commands will accomplish this task?

A. route -e get to 192.168.1.40 from 10.0.2.15
B. ip route get 192.163.1.40 from 10.0.2.15
C. ip route 192.169.1.40 to 10.0.2.15
D. route -n 192.168.1.40 from 10.0.2.15

Answer: B

Explanation:
The command ip route get 192.168.1.40 from 10.0.2.15 will test the route between the IP address 10.0.2.15 and the IP address 192.168.1.40. The ip route get command shows the routing decision for a given destination and source address. This is the correct command to accomplish the task. The other options are

incorrect because they either use the wrong commands (route instead of ip route), the wrong options (-e or - n instead of get), or the wrong syntax (to instead of from). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 12: Managing Network Connections, page 379.

NEW QUESTION 214
A cloud engineer needs to check the link status of a network interface named eth1 in a Linux server. Which of the following commands can help to achieve the goal?

A. ifconfig hw eth1
B. netstat -r eth1
C. ss -ti eth1
D. ip link show eth1

Answer: D

Explanation:
The ip link show eth1 command can be used to check the link status of a network interface named eth1 in a Linux server. It will display information such as the MAC address, MTU, state, and flags of the interface. The ifconfig hw eth1 command is invalid, as hw is not a valid option for ifconfig. The netstat -r eth1 command would display the routing table for eth1, not the link status. The ss -ti eth1 command would display TCP information for sockets associated with eth1, not the link status. References: CompTIA Linux+ (XK0- 005) Certification Study Guide, Chapter 13: Networking Fundamentals, page 436.

NEW QUESTION 219
A systems administrator wants to upgrade /bin/ someapp to a new version, but the administrator does not know the package name. Which of the following will show the RPM package name that provides that binary file?

A. rpm —qf /bin/ someapp
B. rpm —Vv / bin/ someapp
C. rpm - P / bin/ some app
D. rpm —i / bin/ someapp

Answer: A

Explanation:
The rpm command is used to manage RPM packages on Linux systems. The -qf option queries the package name that provides a given file. Therefore, the command rpm -qf /bin/someapp will show the RPM package name that provides the binary file /bin/someapp. The statements B, C, and D are incorrect because they do not query the package name, but rather verify, remove, or install a package. References: [How to Use RPM Command in Linux with Examples]

NEW QUESTION 224
A Linux administrator is providing a new Nginx image from the registry to local cache. Which of the following commands would allow this to happen?

A. docker pull nginx
B. docker attach nginx
C. docker commit nginx
D. docker import nginx

Answer: A

Explanation:
The command that would allow this to happen is docker pull nginx. Docker is a software platform that allows the administrator to create, run, and manage containers on Linux systems. Containers are isolated and lightweight environments that can run applications and services without affecting the host system. Docker uses images to create containers, which are files that contain the code, libraries, dependencies, and configuration of the applications and services. Docker uses a registry to store and distribute images, which is a service that hosts and serves images. Docker Hub is the default public registry that provides a large number of official and community images. Nginx is a popular web server and reverse proxy that can run as a container. The command docker pull nginx will download the latest version of the Nginx image from the Docker Hub registry to the local cache, which is the storage location for the images on the host system. This will allow the administrator to provide a new Nginx image from the registry to the local cache. This is the correct command to use to accomplish the task. The other options are incorrect because they either do not download an image from the registry (docker attach nginx or docker commit nginx) or do not exist (docker import nginx). References: CompTIA Linux+ (XK0- 005) Certification Study Guide, Chapter 19: Managing Cloud and Virtualization Technologies, page 571.

NEW QUESTION 227
Ann, a security administrator, is performing home directory audits on a Linux server. Ann issues the su Joe command and then issues the Is command. The output displays files that reside in Ann's home directory instead of Joe's. Which of the following represents the command Ann should have issued in order to list Joe's files?

A. su - Joe
B. sudo Joe
C. visudo Joe
D. pkexec joe

Answer: A

Explanation:
The su command is used to switch to another user account on Linux systems. The - option makes the shell a login shell, which means that it will read the profile and environment variables of the target user. Without this option, the shell will retain the environment variables of the original user. This can cause confusion when issuing commands that depend on these variables, such as Is, which uses the $HOME variable to determine the home directory. Therefore, Ann should have issued su - Joe to list Joe’s files instead of her own. References: [How to Use su Command in Linux with Examples]

NEW QUESTION 231
A user is attempting to log in to a Linux server that has Kerberos SSO ena-bled. Which of the following commands should the user run to authenticate and then show the ticket grants? (Select TWO).

A. kinit
B. klist
C. kexec
D. kioad
E. pkexec
F. realm

Answer: AB

Explanation:
The following commands can help the user to authenticate and show the ticket grants using Kerberos SSO on a Linux server:
? kinit: This command obtains and caches an initial ticket-granting ticket (TGT) for
the user from the Kerberos key distribution center (KDC). The user needs to enter their password or use a keytab file to authenticate1.
? klist: This command lists the cached tickets, including the TGT and any service tickets, for the user. It also shows the expiration time and flags for each ticket2.
For example, the user can run the following commands to log in and view their tickets:
$ kinit username@REALM Password for username@REALM:
$ klist
Ticket cache: FILE:/tmp/krb5cc_1000 Default principal: username@REALM
Valid starting Expires Service principal
04/06/2023 16:06:59 04/07/2023 02:06:59 krbtgt/REALM@REALM
renew until 04/13/2023 16:06:59 References:
? kinit(1) - Linux man page, section “Description”.
? klist(1) - Linux man page, section “Description”.

NEW QUESTION 234
A file called testfile has both uppercase and lowercase letters:
$ cat testfile ABCDEfgH
IJKLmnoPQ abcdefgH ijklLMNopq
A Linux administrator is tasked with converting testfile into all uppercase and writing it to a new file with the name uppercase. Which of the following commands will achieve
this task?

A. tr '(A-Z}' '{a-z}' < testfile > uppercase
B. echo testfile | tr "[Z-A]" "[z-a]" < testfile > uppercase
C. cat testfile | tr '{z-a)' '{Z-A}' < testfile > uppercase
D. tr '[a-z]' '[A-Z]' < testfile > uppercase

Answer: D

Explanation:
This command will use the tr tool to translate all lowercase letters in the testfile to uppercase letters and write the output to the uppercase file. The first argument ‘[a-z]’ specifies the set of characters to be replaced, and the second argument ‘[A-Z]’ specifies the set of characters to replace with. The ‘<’ symbol redirects the input from the testfile, and the ‘>’ symbol redirects the output to the uppercase file12.
References: 1: Linux Tr Command - javatpoint 2: Linux tr Command with Examples - phoenixNAP

NEW QUESTION 236
A Linux administrator was tasked with deleting all files and directories with names that are contained in the sobelete.txt file. Which of the following commands will accomplish this task?

A. xargs -f cat toDelete.txt -rm
B. rm -d -r -f toDelete.txt
C. cat toDelete.txt | rm -frd
D. cat toDelete.txt | xargs rm -rf

Answer: D

Explanation:
The command cat toDelete.txt | xargs rm -rf will delete all files and directories with names that are contained in the toDelete.txt file. The cat command reads the file and outputs its contents to the standard output. The | operator pipes the output to the next command. The xargs command converts the output into arguments for the next command. The rm -rf command removes the files and directories recursively and forcefully. This is the correct way to accomplish the task. The other options are incorrect because they either use the wrong options (-f instead of -a for xargs), the wrong arguments (toDelete.txt instead of toDelete.txt filename for rm), or the wrong commands (rm instead of xargs). References: CompTIA Linux+ (XK0-005) Certification Study Guide, Chapter 11: Managing Files and Directories, pages 349-350.

NEW QUESTION 238
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